



# SMITHSONIAN Zoogeer



SPRING 2018

## Fresh Faces

Some were born here.  
Some came from other zoos.  
And they're all eager to meet you.

- » **FONZ's Wild Beginnings**
- » **A Shocking New Exhibit**
- » **For Kids: Beastly Brain-Busters**





Andrew McGeoch and Janet Hume are two of the winners of the 2017 Cyber Safari challenge! They worked together to get a total of 10,325 points! By visiting the Zoo once a month, they were able to steadily complete the tasks. They also attended Brew at the Zoo and completed some of the event-specific Cyber Safari challenges. And as for the upcoming challenge, Andrew said, "Come all challengers!"

# CONGRATULATIONS!

**Don't miss the 2018 Cyber Safari challenge, themed around African animals. Winners get a private Zoo tour!**

## GET THE APP!

Search for Scavify (Android or iOS) in the App Store or Google Play and download the free app.





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SPRING 2018 | Vol 47, No 1

**FEATURES**

ERICA ROYER/NZP

## **Fresh Faces**

A photo portfolio of the new animals at the Zoo and Conservation Biology Institute, from an Amur tiger to a screaming hairy armadillo to a red siskin, one of the most endangered species on earth.

**BY PETER WINKLER**

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**BY PETER WINKLER**

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SPRING 2018

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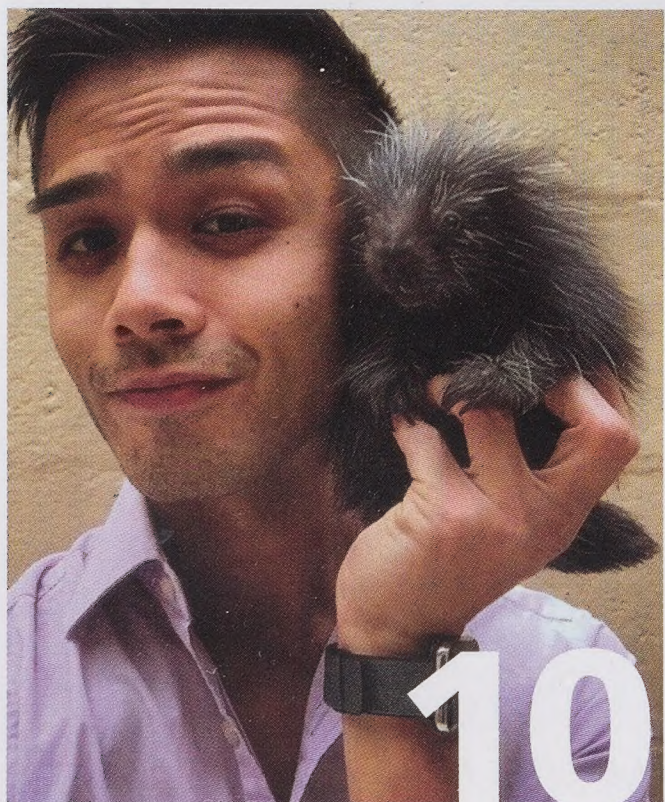
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MARC VALITUTTO/NZP

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CLYDE NISHIMURA/NZP

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# SMITHSONIAN Zoogoer



The Friends of the National Zoo helps the Smithsonian's National Zoo and Conservation Biology Institute save species by raising funds to support their mission, providing educational and fun experiences, and inspiring our members and guests.

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**Smithsonian National Zoological Park** is located at 3001 Connecticut Ave., N.W., Washington, D.C., 20008-2537. Weather permitting, the Zoo is open every day except December 25. For hours and other information on visiting the Zoo, go to [nationalzoo.si.edu](http://nationalzoo.si.edu).

**Membership** in FONZ supports the animal care, conservation, and educational work of the Smithsonian's National Zoo and Conservation Biology Institute. It also offers many benefits: a *Smithsonian Zoogoer* subscription, discounts on shopping and events, discounted or free parking, and invitations to special programs and activities. To join, call 202.633.2922, or visit [fonz.org/join](http://fonz.org/join).

### Membership categories

Standard.....	\$64
Premier .....	\$84
Premier Plus .....	\$114
Patron Circle .....	\$250
Sponsor Circle .....	\$500
Benefactor Circle.....	\$1,000
Director Council.....	\$2,500
Explorer Council .....	\$5,000
Ambassador Council .....	\$10,000

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**On the cover:** Minnie, a new opossum at the Small Mammal House.  
 PHOTO BY CLYDE NISHIMURA

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# PROUD PAST, EXCITING PRESENT, CRITICALLY IMPORTANT FUTURE

## Friends of the National Zoo turns 60 this year!

The organization that started with a handful of concerned citizens and a \$50 donation now has thousands of members and contributes millions to the Zoo each year.

It's impossible to walk anywhere in the Zoo without encountering FONZ's contributions: Guest Services staff looking after visitors, folks buying food and souvenirs, kids taking part in our educational programs, volunteers spreading the conservation message or helping keepers, exhibits members helped fund, and so much more. Thank you for your invaluable support!

I'm especially excited by FONZ's recent initiatives to directly support conservation work. In the past two years, we have contributed over \$200,000 to our animal

care and conservation science partners to help save species here and around the globe. Grants from our Round Up for Conservation program in gift shops and food concessions have helped scientists study stress hormones in Cuban crocodiles, survey cheetahs in Kenya, and chart the migration of brown pelicans in Chesapeake Bay, among other projects. Whenever you round up a purchase at the Zoo, you fund this work.

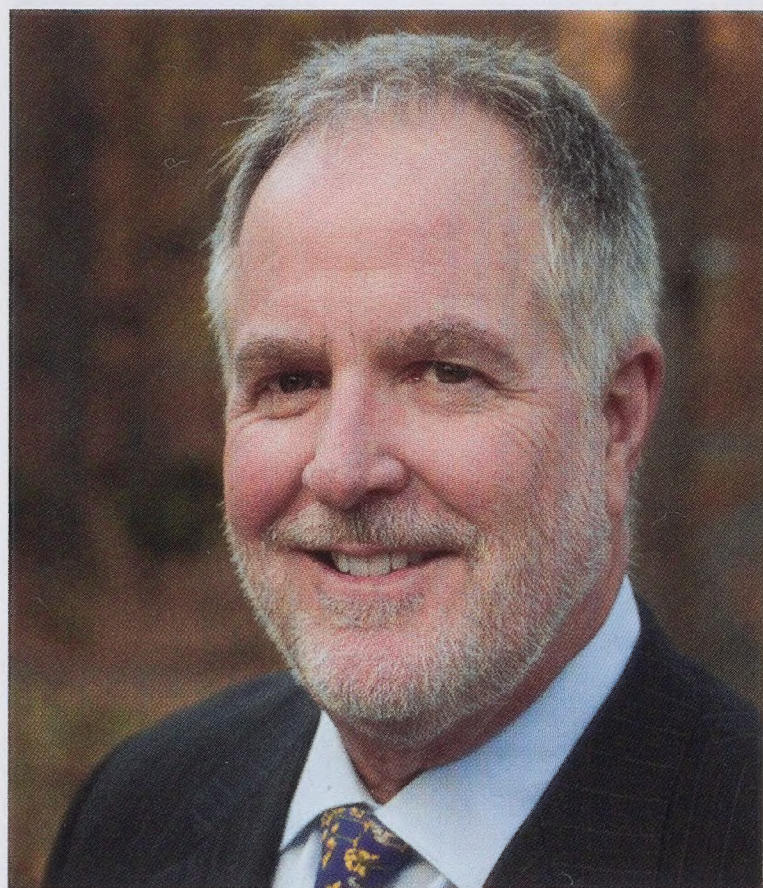
Another FONZ program, Conservation Nation, has helped provide GPS tracking collars to help save elephants in Myanmar and giraffes in Kenya, and they have helped our vets travel to Peru to collaborate on Andean bear conservation. Check it out at [ConservationNation.org](http://ConservationNation.org), and thank you to all of you who have contributed so far!



COURTNEY SMITH/FONZ

Lynn Mento, Executive Director  
Friends of the National Zoo

## NEW ROLE, ENDURING GOALS



RICARDO STANOS/NZP

Steven L. Monfort, Acting Director  
Smithsonian National  
Zoological Park

### I've spent my entire career at the Smithsonian, starting back in 1986.

I worked as a research veterinarian for 20 years, and later was appointed as the John and Adrienne Mars Director of the Smithsonian Conservation Biology Institute. Late last year, after Dennis Kelly moved to Smithsonian Enterprises, I took on the additional duties as acting director of the Zoo and SCBI.

My work has given me a firsthand appreciation of how conservation biology is central to sustaining our natural and cultural heritage. In the 1960s, the Zoo established one of the world's first zoo-based research departments, and my predecessors helped establish the then-new discipline of zoo biology—using science to improve animal care, reproduction, and welfare. In the 1980s, our scientists helped develop another new discipline, called conservation biology—a value-driven discipline based

on the premise that biological diversity and functioning ecosystems benefit current and future human societies, and all life on earth. Since then, the Smithsonian's National Zoo and Conservation Biology Institute has been instrumental in helping to achieve amazing conservation successes, including restoring and reintroducing golden lion tamarins, black-footed ferrets, California condors, Florida panthers, scimitar-horned oryx, and many others.

Today, we support nearly 50 Ph.D.-level scientists and veterinarians, along with more than 100 postdoctoral fellows and graduate students. They work at our two facilities and with partner organizations in more than 25 countries to advance our mission of "saving species." I look forward to the challenges and joys of a broader role in leading that work—and helping us understand and sustain biodiversity here and around the world.



# Spring

## into Excitement at the Zoo

### Easter Monday | APRIL 2

**FREE:** An egg hunt, games and races, animal demonstrations, and live entertainment await families taking part in one of Washington's oldest traditions. And don't miss the Easter Panda! [fonz.org/eastermonday](http://fonz.org/eastermonday)



CONNOR MALLON/NZP



TIM GOECKE/NZP

**Exhibit: "Our Voices in Saving Species" | VISITOR CENTER**  
**FREE:** Learn about some of the SCBI scientists who've devoted their careers to understanding—and protecting—wildlife around the globe.  
[fonz.org/voices](http://fonz.org/voices)



ABBY WOOD/NZP

### Daily Discoveries

Meet keepers and their charges, watch animal training, and enjoy the excitement of feeding time—any day of the week. We've added additional demos for afternoons and weekends. [fonz.org/daily](http://fonz.org/daily)

### Conservation Bracelets | ZOO SHOPS

How can you help save species? One easy way is to pop into a Zoo gift shop and purchase a conservation bracelet. All proceeds go to Conservation Nation, a FONZ initiative that funds Smithsonian scientists' research to save threatened species in the wild.



COURTNEY SMITH/FONZ



### New Red Pandas | ASIA TRAIL

Come meet Nutmeg (a four-year old female) and Jackie (her male cub), who took up residence on Asia Trail earlier this year. [fonz.org/nutmeg](http://fonz.org/nutmeg)



ROSHAN PATEL/NZP

### Earth Optimism Day | APRIL 21

**FREE:** Come honor Mother Earth and learn how to keep her in good health via interactive demonstrations and other family-friendly activities. [fonz.org/earthday](http://fonz.org/earthday)



CONNOR MALLON/NZP



### World Migratory Bird Day | MAY 12

**FREE:** Smithsonian scientists are pioneers in the study of North America's migratory birds. Come learn about their work and enjoy games and demonstrations. [fonz.org/imbd](http://fonz.org/imbd)



MATT MENDELSON/NZP

### ZooFari: Dine for Wildlife, Sponsored by GEICO | MAY 17

Saving species has never been more delicious. The area's finest restaurants and vintners offer tastes of their mouth-thrilling creations. [fonz.org/zoofari](http://fonz.org/zoofari)

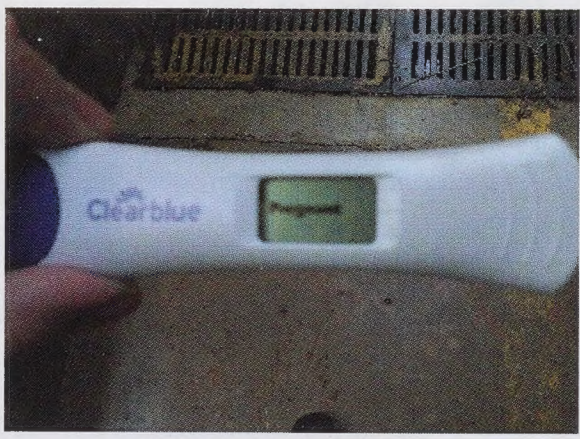


## Baby Gorilla on the Way

Calaya, a 15-year-old western lowland gorilla, is pregnant. Calaya bred with Baraka, the male silverback at the Zoo, this past summer, and she's due between late March and early May. This is heartening news for a critically endangered species.

If all goes well, Calaya will be a first-time mother, so keepers are training her to touch, kiss, and "nurse" a plush gorilla toy. As with any animal pregnancy, there's always a possibility of miscarriage, stillbirth, or complications. You can see the Zoo's six gorillas and meet a great ape keeper at 11:30 a.m. each day.

**Weekly Updates: #GorillaStory on Facebook, Twitter, or Instagram.**



MELBA BROWN/NZP



MEHGAN MURPHY/NZP



ERIN STROMBERG/NZP

## Rat Pack

The Zoo has three new Norway rats: Donut, Muffin, and Cupcake. They've settled in well at Think Tank. Rats may not seem like an obvious choice for the Zoo. After all, they live throughout the D.C. area and in just about every other city on Earth. Yet Norway rats are extremely smart animals, and scientists use them to study animal intelligence.

The rodents have great short-term memories, which is why they're so good at finding their way through mazes. But they can also be trained to use their amazing sense of smell—more acute than a dog's—to sniff out communicable diseases, land mines, and even wild animals being smuggled across borders.

**Learn more: [fonz.org/newrats](http://fonz.org/newrats)**



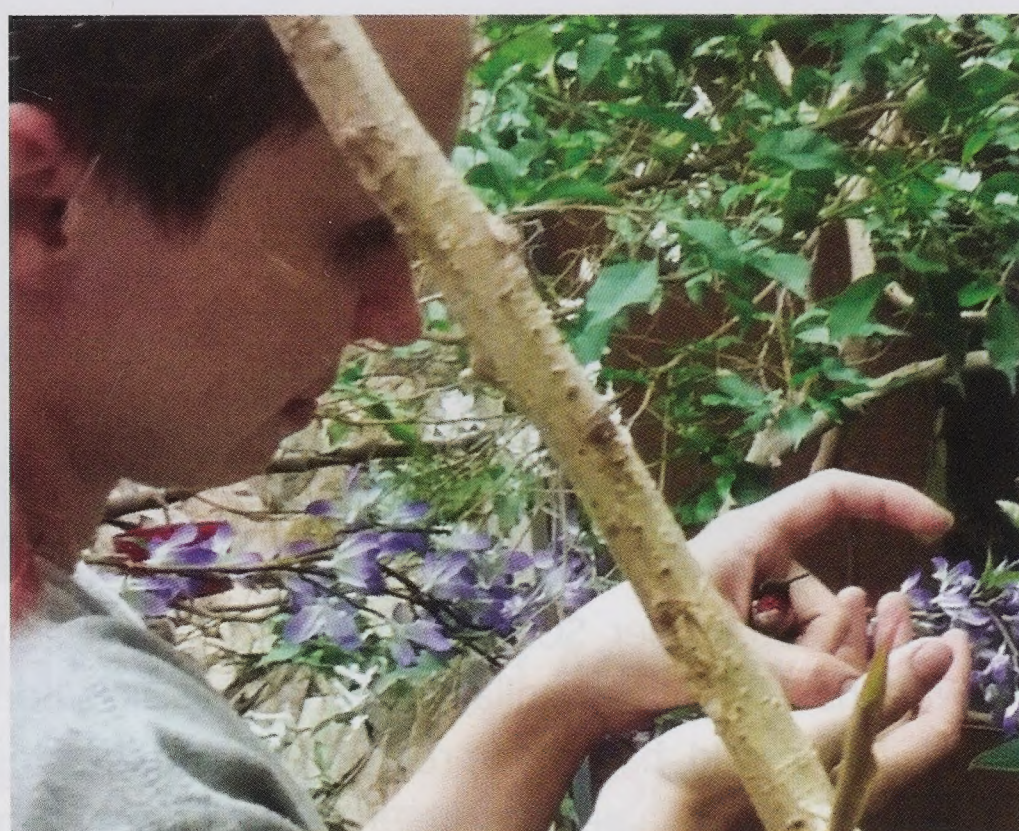
## Keepers at Work: BIRDS

As we wait eagerly for the pioneering Experience Migration exhibit to hatch at the Bird House, many of the Zoo's birds occupy temporary quarters around the park. Here are a few glimpses into the work of caring for them.

Learn more: [fonz.org/bird-keeper](http://fonz.org/bird-keeper)



SARAH STEELE/NZP



JORDANA TODD/NZP

▲ **THE RIGHT TOUCH:** Hands-on exams, especially of feathers, can yield vital clues about a bird's health. Yet holding a bird is tricky. Liz Fisher uses a delicate touch with this tiny **ruby-throated hummingbird**. Holding a woodpecker, on the other hand, takes determination and nerve, since the bird pecks keepers' hands.

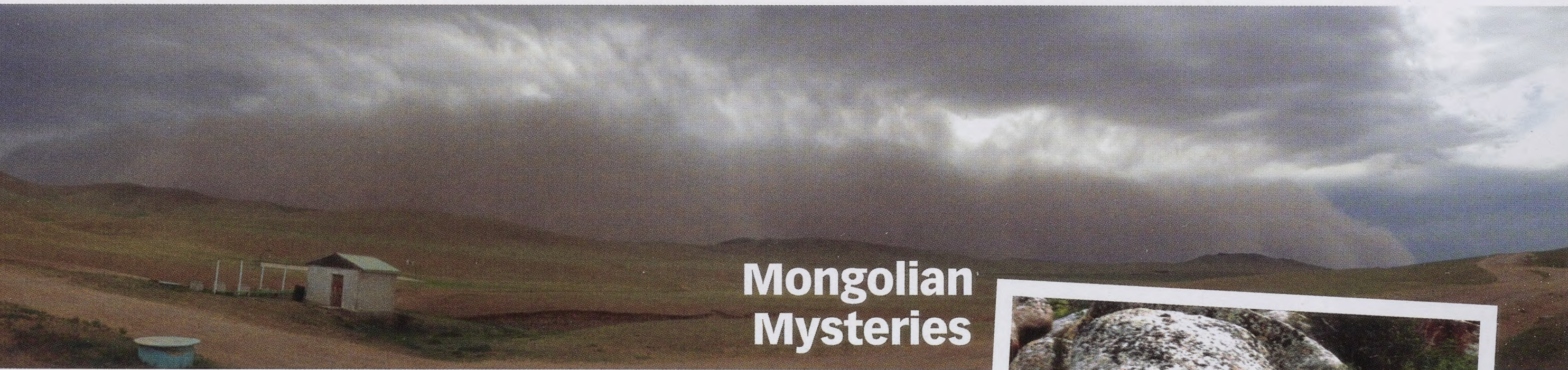
◀ **WEIGHT OR WAIT:** Positive reinforcement, such as the treat Heather Anderson is giving this **black-crowned night heron**, helps lure birds onto a scale for weekly or monthly weigh-ins. If a bird's not interested and walks off, a keeper tries again later.

**TALL ORDER:** A greater rhea can grow six feet tall, so moving one to a new home takes care—and creativity. Holding sheets of plywood around the bird as she walks helps prevent her from getting injured or spooked. ▼



SARA HALLAGER/NZP





## Mongolian Mysteries

Last September, SCBI scientist John McEvoy journeyed to Hustai Nuruu National Park in Mongolia, where Przewalski's horses, once extinct in the wild, have been reintroduced to the steppe. Data from tracking collars revealed that the five groups, called harems, scientists were monitoring seemed to ignore grazing areas in much of the park. In pursuit of clues to the horses' behavior, McEvoy worked with park rangers and Minnesota Zoo colleagues to collar animals in ten additional harems. They sought out elusive harems believed to be more mobile than the first five. Data from the newly collared animals are giving scientists new glimpses into the horses' movements and interactions between harems. Researchers were surprised to learn that horses sometimes venture outside the unfenced park to graze in wheat fields.

Learn more: [fonz.org/mcevoy](http://fonz.org/mcevoy)



JOHN MCEVOY/NZP

JOHN MCEVOY/NZP



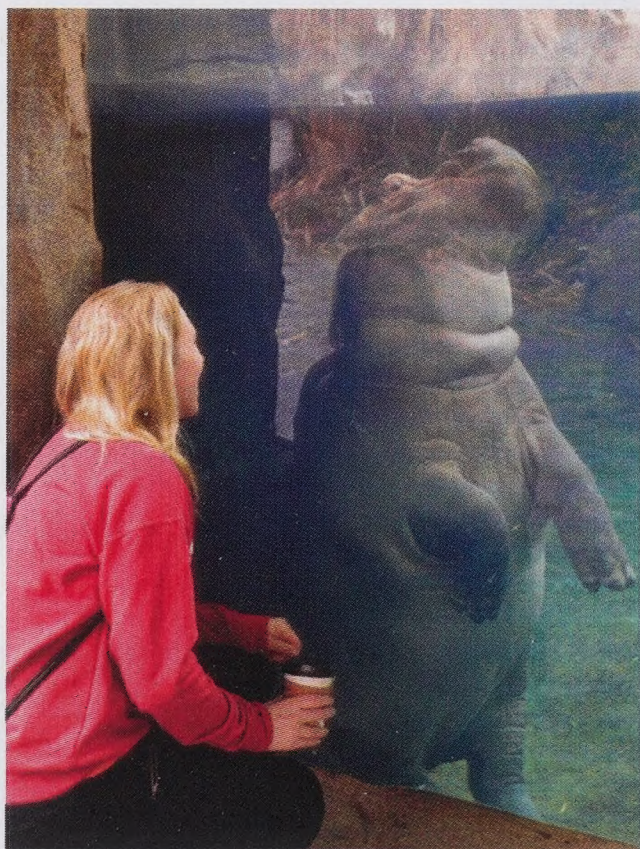
ROSHAN PATEL/NZP

## Officially a Star

The latest kiwi chick to hatch at SCBI now has a name—thanks to you! Her name, chosen by FONZ members, is Whetu, which means "star" in Maori. Kiwis are sacred to the Maori people of New Zealand, so the six chicks hatched at SCBI since 2012 all have Maori names.

Whetu is her parents' first female chick. She has three big brothers: Kaha ("joy"), Hari ("strong"), and Kake ("to overcome").

Learn more: [fonz.org/whetu](http://fonz.org/whetu)



COURTESY OF THE CINCINNATI ZOO & BOTANICAL GARDEN

## A Hungry, Hungry Hippo



COURTESY OF THE CINCINNATI ZOO & BOTANICAL GARDEN

The Zoo's expertise in animal care and nutrition benefits animals far beyond Washington and Front Royal. Latest example: Fiona, a baby hippo at the Cincinnati Zoo. She's something of a social media star, so you may have heard of her.

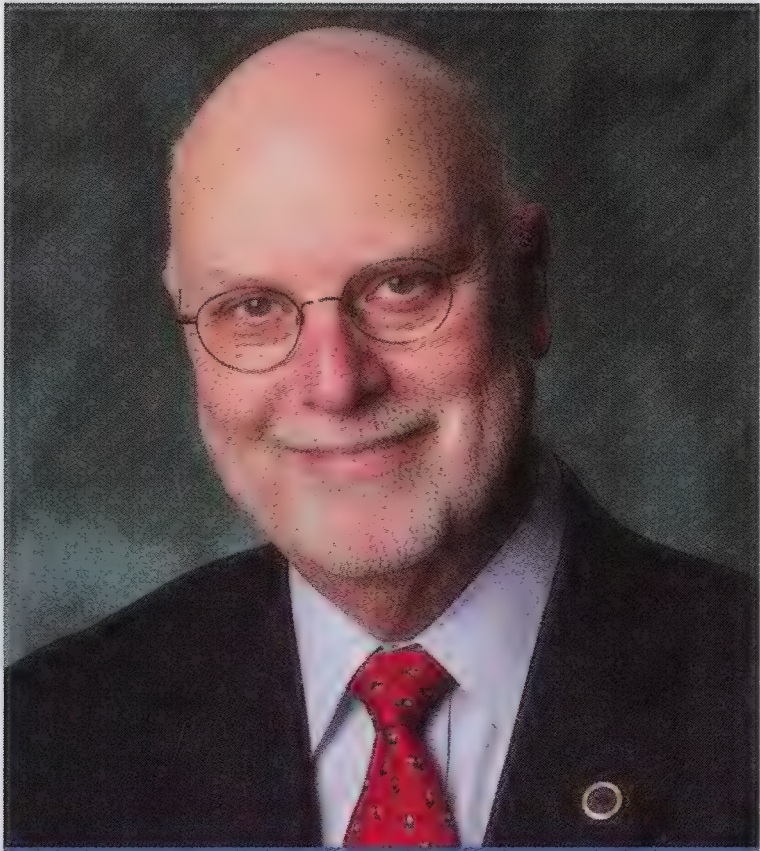
Fiona was born six weeks prematurely in January 2017, weighing just 29 pounds. (Normal hippo infants weigh 60 to 100 pounds.) She was too small to nurse, so keepers had to feed her by hand. But with what? Few grocery stores stock hippo formula.

Keepers in Cincinnati knew whom to call: the Nutrition Science team at

the Smithsonian's National Zoo. They maintain a collection of milk samples from 185 mammal species—including the hippopotamus. Comprising some 15,000 frozen vials, it's the world's largest collection of exotic animal milk.

By analyzing samples of hippo milk, the Zoo's nutrition experts were able to recommend a specific formula with the right balance of protein, fat, sugar, water, and minerals for a growing hippo. With that recipe, Fiona's keepers began mixing batches, which the hippo drank down gleefully. As her first birthday approached, she weighed more than 600 pounds.





SKIP BROWN/NZP

## Thank You, Dennis Kelly

After seven years at the helm of the Smithsonian's National Zoo and Conservation Biology Institute, Director Dennis Kelly departed last November to serve as Interim President of Smithsonian Enterprises, after which he will enjoy a well-earned retirement. We all thank him for his leadership and wish him the very best.

Kelly leaves behind a truly living legacy. Bison, the animals that sparked the Zoo's creation in 1899, now graze here again. Seals, wolves, and more delight visitors on American Trail. Pachyderms get up close and personal in the Elephant Community Center. Bei Bei, the second of two giant pandas born during Kelly's tenure, is a superstar.

Also on Kelly's watch: Kids, many disguised as adults, enjoy the Speedwell Foundation Conservation Carousel. Students passionate about wildlife learn the science of animal survival at the Smithsonian-Mason School of Conservation. And donors great and small contributed \$80 million to help take the Zoo and SCBI to even greater peaks.

Thank you, Dennis, and visit us often!

## THE Z LIST



April 10 will be FONZ's 60th birthday! We'll be celebrating all year, so here are a few key dates to get the party started.

**1958** FONZ is founded on April 10.

**1960** Spurred by FONZ's publication of "The Crisis at Our National Zoo," Congress appropriates sorely needed funding.

**1964** Zoo director Ted Reed asks FONZ to develop educational programs.

**1967** FONZ opens its first concession: a small gift kiosk.

**1975** FONZ's first research and education grant adds \$30,000 to the Zoo's coffers.

**1984** ZooFari makes its delicious debut.

**1990** The Zoo becomes the area's wildest birthday venue as FONZ creates its popular program.

**1997** FONZ tucks in its first Snore & Roar guests.

**2001** For the first time, annual net revenue from FONZ gift shops breaks the million-dollar mark.

**2007** Washington's holidays sparkle brighter once FONZ launches ZooLights.

**2013** Bozie, an Asian elephant joining the Zoo's herd, road-trips from Baton Rouge to D.C., a trek underwritten by FONZ.

**2017** Conservation Nation adds a new dimension to FONZ's support of the Zoo: direct contributions to conservation fieldwork.



SMITHSONIAN'S NATIONAL ZOO



# Marc Valitutto

Wildlife Veterinarian

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**Q: What do you do for SCBI?**

**A:** Some might call me a disease hunter, a thrill-seeker, or just a lover of all things wild. Those are all true. I'm a wildlife veterinary medical officer for the Smithsonian's Global Health Program. It's a position that sends me around the globe wherever there is a need for wildlife veterinary medical care.

**Q: How does your work help save species?**

**A:** My colleagues and I bring modern veterinary care to places that need it. This includes treating animals, investigating diseases, and building the capacity of communities to provide veterinary care. I work alongside Smithsonian biologists and conservationists to help giant pandas, Asian elephants, pangolins, and more. My goal is to maximize the health knowledge we gain from wildlife so it can be applied in zoos and in the wild.

One of my primary projects is contributing to a USAID-funded study called PREDICT. We conduct pandemic surveillance in wildlife, livestock, and humans in places where people and animals interact and disease may spread between species. For instance, we monitor viruses like Ebola and avian influenza. This vital knowledge has a direct, long-term impact on both human and animal health.

**Q: How did you wind up working here?**

**A:** Since I was 16 years old, I have been working at a zoo. I began volunteering at the Staten Island Zoo, my hometown zoo, and eventually went on to complete my residency in zoological medicine and surgery at the Wildlife Conservation Society.

Across these zoos, I have had the privilege of holding various positions, including docent, science instructor, natural resource coordinator, zookeeper, general curator, and veterinarian. Each position has offered me a different perspective on animal care and the impact our work has on species' survival in the wild. Sixteen zoos and aquariums later, I am now happily working for the Smithsonian, representing our Zoo and SCBI on a global level.



MARC VALITUTTO/NZP

MARC VALITUTTO/NZP



**Q: What's your favorite part of the job?**

**A:** The impact. The impact of the work I do with my colleagues is far-reaching and incredibly rewarding. Through healthcare, we save animals. Yet we also work in areas where saving animals has a direct and palpable impact on the health and livelihoods of people sharing the same space as animals. It is an incredibly humbling experience to provide a service that is otherwise unavailable to people and animals in developing nations.

**Q: What's the most challenging part of your work?**

**A:** The unknown. While hunting for the unknown is exciting, such as with disease investigation and surveillance, it can also be a challenge when there is little information available to conduct the research. A not-so-uncommon part of diagnostic evaluation and research is finding nothing despite apparent symptoms. And with a race against time and money, the unknown is definitely a challenge.

**Q: What's the coolest or strangest thing you've learned working for SCBI?**

**A:** As a zoo and wild animal veterinarian, every day brings a new learning experience. Zoo and wildlife veterinarians are always on the cutting edge of medicine, identifying new diseases and conditions that have never been described before. Finding ways to treat a patient or a herd takes a great deal of problem-solving far beyond the disease itself, with creativity required for long-term care and medical therapy.

**Q: What's your favorite animal? Why?**

**A:** Don't tell the other animals, but I find the cassowary, of which there are three remaining species, to be the most intriguing specimen. One part dinosaur, or maybe all parts dinosaur, it is as prehistoric as they come!

There is still so much to be learned from this not-so-gentle giant from a medical standpoint, and, as the AZA veterinary advisor for the cassowary, I am determined to discover more. I also have an unhealthy obsession for all things waterfowl, but that's a story for another day. Did I mention my passion for tortoises too?



**Q If you could tell FONZ members one thing, what would it be?**

**A** It's totally wild out there, and it's awesome! Don't hold back, dare to make mistakes, and have fun while doing it.





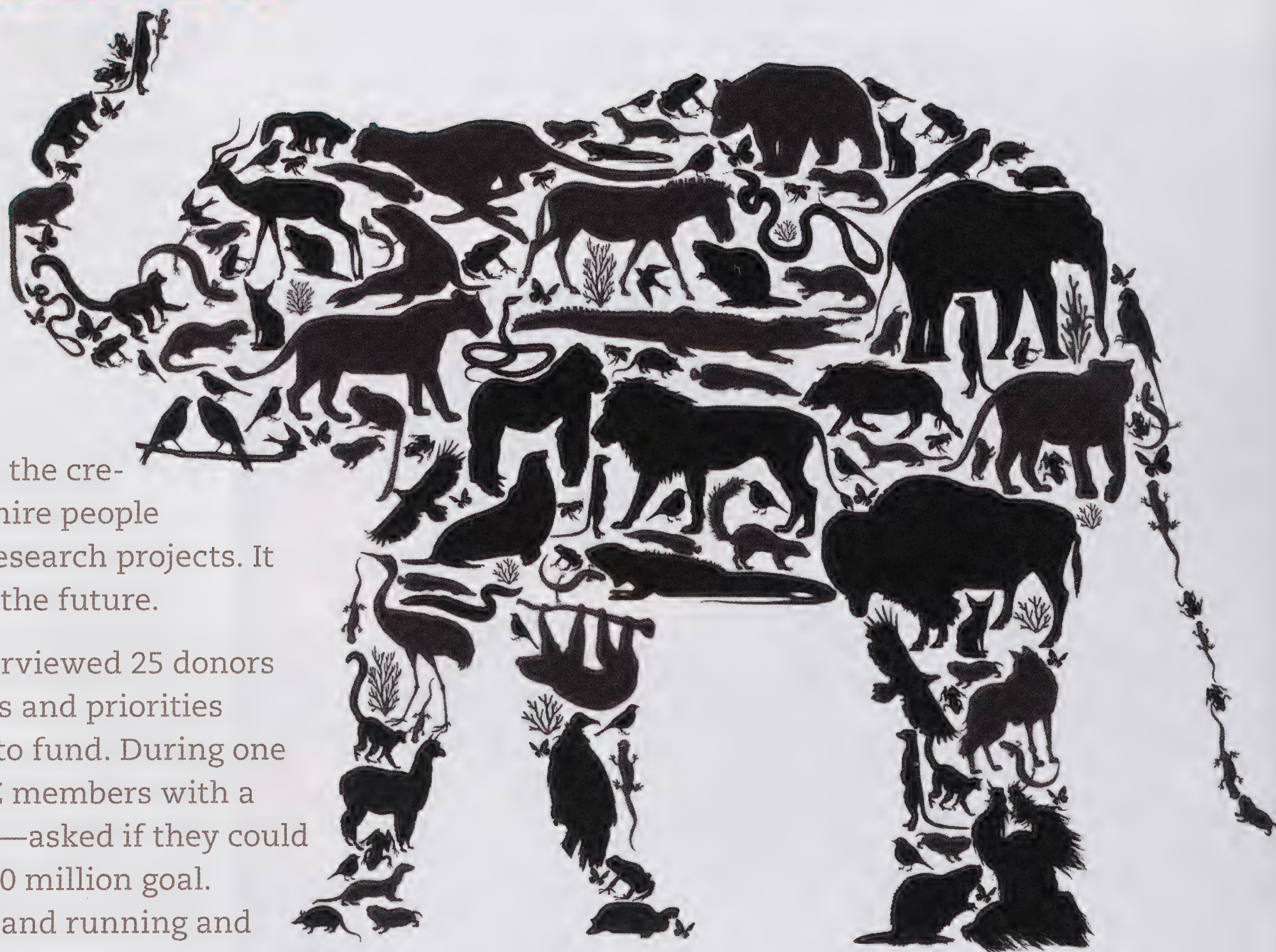
## A Huge Thank You!

Our 2013-2017 campaign exceeded the original \$80 million and raised \$86.2 million! You helped us to complete this picture:

The campaign made an impact throughout the National Zoo & Conservation Biology Institute. It funded the creation of new exhibits, allowed us to hire people in new positions, and enabled new research projects. It also funded lasting endowments for the future.

At the start of the campaign, we interviewed 25 donors and prospects to identify the projects and priorities they thought were most compelling to fund. During one interview, a couple—long-time FONZ members with a designated \$2 million gift to the Zoo—asked if they could count that toward the campaign's \$80 million goal. "Immediately, the campaign was off and running and we had confidence that we could achieve our ambitious goal!" said Lesli Creedon, Associate Director for Advancement.

Another remarkable act of generosity came when a member of the Zoo's Advisory Board asked during a meeting this past October how much was still needed to meet the campaign's goal. This immediately sparked a conversation among the members and led to on-the-spot commitments totaling \$800,000. "I was later asked if I had 'planted' that question," said Creedon. "I wish I had, but it was spontaneous generosity—what our board and so many others demonstrated all along the way."



Below is a breakdown of how your gifts were put to work.

Because of support from friends like you, we are accelerating our work and our improvements to the park. The impact of the campaign will be felt for years to come!



### BECOME A COUNCIL MEMBER TODAY

Council members receive exclusive benefits such as behind-the-scenes tours and special opportunities to learn about the critical work of saving species. Council events in the coming months will include the Director's Talk, our Animal Talk Series, and our SCBI Van Tour.

Come with us on our journey to save species! Join the Council. We need you!

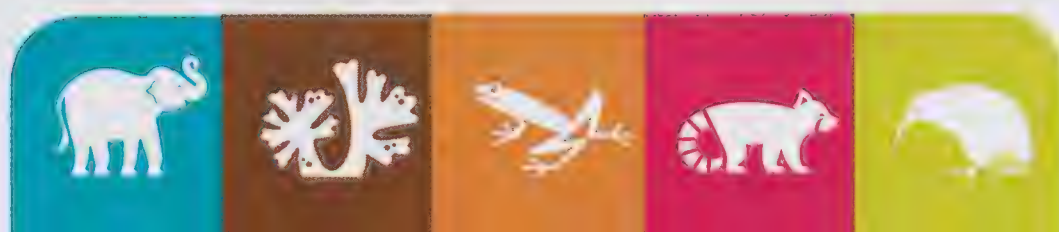




# Annual Member Celebration

**Saturday, June 30, 2018 | 8-10 a.m.**

Join us for demonstrations, events, activities,  
and much more! Register online at [fonz.org/memberday](http://fonz.org/memberday)  
to take part in this exclusive members-only morning!





From humble and often entertaining roots, FONZ has grown in 60 years to a towering champion of the Zoo and its species-saving mission.

# SPOTS, STRIPES & STORIES

BY PETER WINKLER

**N**o one knew why the phone in the animal hospital was always off the hook. The mystery lingered till someone caught Spice—a three-month-old spotted leopard—stalking the veterinarian’s desk with the handset in her

mouth. Spice had lived at the hospital since just after birth, when she was whisked away from her cannibalistic mother.

Her companions included a chimp named Jack and a baboon called Jingle, both of whom wore diapers. Rounding out the crowd were Chip, a lion cub, and Belle Belle, a guenon monkey. “All five were obviously thriving in their new environment, whose atmosphere was more kindergarten than clinic.”

That glimpse into a very different era at the Zoo comes from the December 1965 issue of *Spots and Stripes*, the first publication for FONZ members. Hand-typed articles in those quarterly newsletters offer fascinating insights into the organization’s early years, showing how Friends of the National Zoo has evolved—yet remains true to its roots.



SMITHSONIAN'S NATIONAL ZOO







### A Cry for Help

"The truth is that the National Zoological Park is falling apart at the seams," reported the *Washington Star* in 1958. No one disagreed, least of all the Zoo's new director, Theodore Reed. He told anyone who would listen that the Zoo needed help—fast.

Help came in the form of a small band of Washingtonians, who created Friends of the National Zoo on April 10, 1958. As president, they chose attorney Max Kampelman, a senior aide to Senator Hubert Humphrey. Kampelman swiftly flexed his political muscle, knocking on legislators' doors and testifying before a hearing about the Zoo's plight.

A decade later, John Perry, a former FONZ president who'd become the Zoo's assistant director, spoke at the annual meeting, lauding how much the group had accomplished. "In 1960," he said, "the National Zoo had a budget only half as large as we have today. The Zoo had no capital budget nor any plans for major new construction.... That was the year the Friends of the National Zoo published a manifesto entitled 'The Crisis at Our National Zoo.'"

That same year, Perry continued, FONZ created a master plan and presented it to the Smithsonian. "You know what has happened since. The first three phases of development have been completed.

Hungry and thirsty zoogoers converge on the Mane Restaurant in 1959.



# SPOTS, STRIPES & STORIES



ABOVE: Visitors in 1961 explore the freshly renovated Reptile House.

BELOW: Members show off the T-shirts they received at ZooNight in 1978.

SMITHSONIAN'S NATIONAL ZOO

The hospital and research building is under construction.”

The Zoo had also created the first scientific department in its history, and architects were drawing up plans for “an orientation center including a small theater, library, classrooms, and other educational facilities.” FONZ had definitely made a difference—a striking achievement for a group with just over a thousand members by 1968.

## From ZooNight to ZooLights

One question loomed over many early issues of *Spots and Stripes*: When is ZooNight? In 1961, FONZ began hosting an annual thank-you event for members, giving them exclusive access to the park after hours, with tours by Zoo leadership.

In 1965, Director Theodore Reed showed off the new outdoor flight enclosure. The next year, members explored just-completed paddocks. Despite rain in 1968, the first corps of volunteer guides herded guests around the park to see lions, monkeys, sea lions, and more.

That same year, FONZ sponsored a day at the Zoo for diplomats and their families. It drew 238 guests from 31

countries. Flags from India, West Germany, Liberia, and many other nations fluttered by the enclosures of animals who were gifts of state.

“Along the route,” reported *Spots and Stripes*, “feed cakes and fish were tossed in the general direction of the bears and sea lions. The tour concluded at the bird house with hot chocolate being served. As a souvenir of their Zoo visit, each of the children received a porcupine quill.”

FONZ events have grown more ambitious since then. In 1984, Executive Director Sabin Robbins and Events Chief Pat Petrella decided it was time for the organization’s standard, stodgy dinner gala to morph into something exciting. “We thought: We’re the Zoo,” Petrella recounted. “We need to have more fun and mix it up.”

The result: ZooFari. Three decades later, it remains FONZ’s leading fundraiser and a magnet for lovers of food and animals. And it’s definitely an only-at-the-Zoo event, as guests learned one year at the Reptile Discovery Center. With plates full of tasty tidbits, they chewed and viewed as an alligator devoured its own feast of frozen rabbits. Suddenly, perhaps overtaken by the spirit of the event, the reptile began flinging its scraps at the guests. They declined to taste them but no doubt dined out on the story for ages afterward.

ZooLights, first switched on in 2007, has become a literal bright spot on the D.C. holiday scene, drawing thousands to the park each winter. Add FONZ’s hauntingly popular Halloween happenings, along with Brew at the Zoo, Zoo Uncorked, and more, and the result is nearly 300,000 event guests a year—having a roaring good time while supporting conservation.

## Meet Me at the Kiosk

“This spring should mark the beginning of a new era for the Friends,” exulted *Spots and Stripes* in Spring 1967. “If all goes well, financial worries will be a thing of the past, and by the end of the year we should be well on our way to implementing our educational program. The center of all this activity will be a kiosk that will stand near the clock in the center of the Zoo.”



MAX HIRSCHFELD/NZP





Visitors in 1959 crowd together at the Sea Lion Pool to delight in the marine mammals' antics.

A members-only exclusive offered at the kiosk was a three-ring binder “for the safe-keeping of your back numbers of *Spots and Stripes*,” complete with an index. Adorning the cover was Mohini, the white tiger who served as FONZ’s first logo.

“The sales item we should all be most proud of is our first title in a series of National Zoo coloring books. With all candor, these books must be seen (and purchased?) to be really appreciated.” The first book featured large mammals, to be followed by birds.

An early sellout at the kiosk was a tie with a white tiger pattern. Another item came with surely the oddest guarantee in retail history: “It is said that nobody wearing the lapel pin, which bears the words ‘I am a Friend of the National Zoo,’ has yet been chewed by a tiger.”

One early FONZ venture, vintage 1967, is hard to imagine today: “Friends of the National Zoo had arranged to operate a fish-vending cart. For a dime at feeding hours, zoogoers could have the rare opportunity of buying a fish, tossing it to the

delighted barking sea mammals in their tree-shaded pond below the bear line. The sea lions must have thought the human beings had at last come to their senses.”

Less than a decade later, FONZ was serving a lot more than fish. In 1975, after years of determined effort, the organization won the contract to operate food concessions at the Zoo. That tasty new chapter in FONZ’s history began with overhauling the elderly Mane Restaurant and creating the Panda Overlook Café.

Today, gift shops and food concessions are major parts of FONZ’s portfolio. In 2016, merchandise sales and restaurant revenue enabled FONZ to give \$4.1 million to the Zoo.

### The Work of Watching

“No human royalty about to produce an heir ever received such solicitous attention as Princess, the presumably expectant lioness,” reported *Spots and Stripes* in 1967. “For one solid week, until the Zoo’s medical staff decided it was all a false alarm, the lady was the object of around-

## May I Help You?

In FONZ’s early years, volunteers staffed information booths—often card tables in disguise—around the park, a job now ably done by the Guest Services team. Over six days in the summer of 1969, the volunteers fielded 383 questions. A few highlights:

- 42 people: *Where are the restrooms?*
- 19 people: *How do I get to the Bird House?*
- 14 people: *Where’s the white tiger?*
- 11 people: *Where are Smokey and the other bears?*
- 8 people: *Where are the kangaroos?*
- 7 people: *Can I rent a stroller?*
- 5 people: *Where’s the Komodo dragon?*
- 1 child: *Are we allowed to ride the little animals?*
- 1 parent: *Would you like to buy my children?*



## SPOTS, STRIPES & STORIES

the-clock surveillance via closed circuit television.”

“The watchers, Friends of the National Zoo all, were a kaleidoscopic group,” including a retired Smithsonian official, an aerospace engineer, a children’s book

author, a subcabinet wife, and “a generous assortment of high school students.” FONZ members soon took part in “other natal vigils, including that of a black rhinoceros.”

“It’s a rare and wonderful experience to baby-sit a pregnant rhino in the great shad-

owed cavern of the large mammal house during the still hours of a hot summer night. The silence is heavy. You don’t forget that the quiet dark masses behind bars are some of earth’s most spectacular animals—rhinos, elephants, hippos, giraffes. Their gamy scent hangs like mist in the air. Flies buzz. At times there is no other sound.”

FONZ President Malcolm Henderson gave this vital volunteer opportunity a name: “preg-sitting.” *Spots and Stripes* predicted that “Dr. Henderson’s ‘preg-sit’ will go down in history or infamy as a term worthy of great zoological significance.” That didn’t happen, but behavior watchers—now monitoring a whole range of activities and staffing the popular panda cam—remain a key part of FONZ’s corps of dedicated volunteers.

Today, that group includes 1,261 people, who contribute more than 80,000 hours of service each year. Many play essential roles in communicating the Zoo’s education and conservation messages. In 2017, for instance, volunteers struck up conversations with or answered questions from 737,408 visitors, giving them a deeper understanding of the work of saving species.

### It Started with a Station Wagon

“Seven teachers in the District of Columbia Public School System, representing a wide variety of grade levels and different parts of the city, recently attended a luncheon meeting at the Administration Building of the National Zoological Park.” That sentence, unusually prosaic for *Spots and Stripes*, told members in 1965 about an undertaking that would grow into a major focus of FONZ’s work.

The teachers offered advice on “the preparation of material which would make trips to the Zoo more meaningful to school children.” A year later, the chair of the FONZ education committee proudly told members at the annual meeting that the group had created a brochure for students. “This is the first time such an informational piece has been available to the Zoo.”

Things grew from there. The Summer 1968 newsletter reported, “The Friends of the National Zoo docent program is off to a flying start. Two training courses have been held and thirty members of the



Theodore Reed, who served as the Zoo’s director when FONZ was founded in 1958, enjoys the company of a golden lion tamarin.

ILEEN BERG/NZP



JESSIE COHEN/NZP



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UNITED STATES FOREST SERVICE



Friends are now qualified to guide groups through the Zoo. By the end of the summer we estimate that we shall have given tours to about 3,000 children."

Being a docent was rigorous. Training took five days, from 10 a.m. to 3 p.m. "It is essential to take copious notes and to have a thorough knowledge of the course text book 'Zoo Animals.' Outside reading is advised." Lacking an office, the docents ran their operation from the back of a member's station wagon.

Then there was the terrain: "Physical stamina is important, too. During the five days of the training course, the Zoo's

MAX HIRSCHFELD/NZP



**TOP LEFT:** Mohini, a white tiger, was a magnet for Zoo visitors—and FONZ's first mascot.

**TOP RIGHT:** Miss Florida 1957 presents a pair of young alligators to Zoo Director Theodore Reed.

**ABOVE:** Rescued from a forest fire in 1950, Smokey Bear became one of the most famous residents in the Zoo's history.

**LEFT:** Silk-screening T-shirts was one of the highlights of ZooNight in 1978.



## SPOTS, STRIPES & STORIES

In 2017 volunteers struck up conversations with or answered questions from 737,408 visitors, giving them a deeper understanding of the work of saving species.

165 acres seem more like 500, and in 95° heat even the downhill paths seem uphill. No doubt the winter will present other problems.”

No doubt the winter did, but that didn't freeze FONZ's educational mission. The 1976 annual report recounted, “In 1974 FONZ acquired a room at the Zoo to offer classes for members for the first time. Happily, the membership has responded enthusiastically to everything from ‘Ark in the Park’ to ‘Learning as a Biological Trait.’ The availability of several more classrooms in the new Administration-Education Building will enable expansion of these popular Zoo classes for all ages.”

Indeed it did. FONZ now offers children's camps and classes year-round, and the Snore & Roar program is a summer staple in the capital. Birthday parties are wildly popular. In 2016, they reached nearly 10,000 children and parents. From today's vantage point, that 1965 lunch for seven teachers was arguably one of the most productive meetings in D.C. history.

### Numbers and Words

Numbers may offer the handiest snapshot of FONZ's remarkable success story. A handful of concerned citizens in 1958 grew in a decade to an ambitious organization with more than a thousand members. By its 25th birthday, in 1983, FONZ boasted 25,000 members and 500

volunteers. Today, FONZ has more than 30,000 member households.

Much has grown and changed. Yet our driving passion hasn't. In spring 1970, *Spots and Stripes* shared still-resonant counsel from John Perry: “What FONZ should do,” he said, “is to stress the relevance of wild animals in the world today, and their relevance to the environment we share with them, one on which we all depend.” [SZ](#)

—PETER WINKLER *is the editor of Smithsonian Zoogoer.*



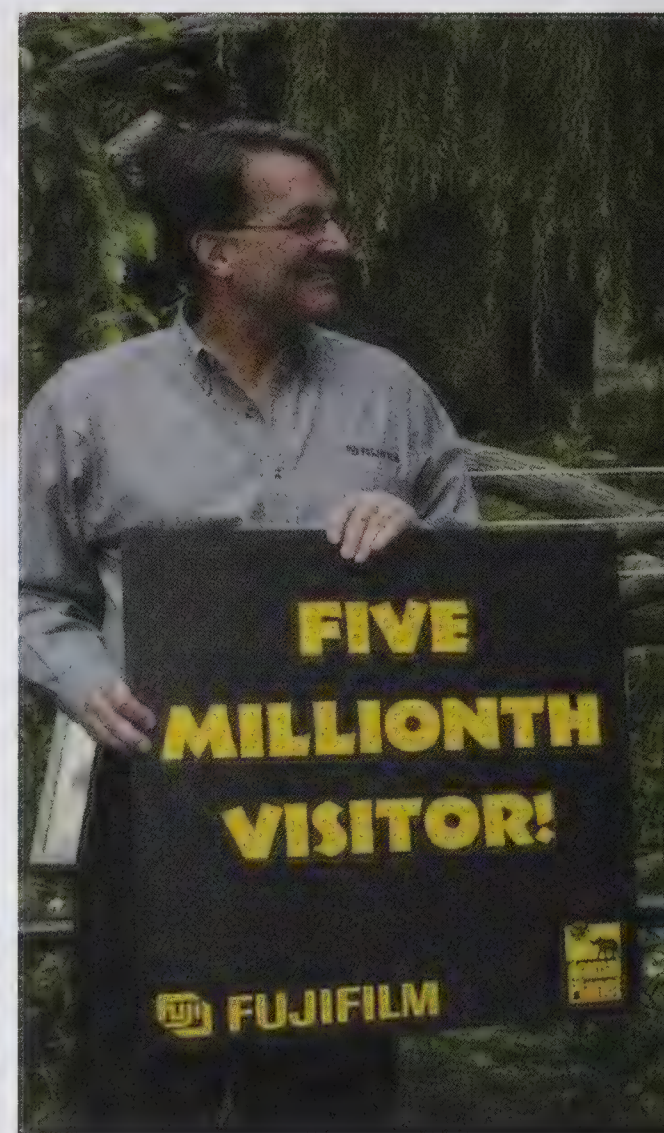
J'NIE WOOSLEY/NZP



MEGHAN MURPHY/NZP



JESSIE COHEN/NZP



JESSIE COHEN/NZP





JESSIE COHEN/NZP



**TOP LEFT:** Started in 1984, ZooFari has become FONZ's signature event and leading fundraiser.

**TOP RIGHT:** FONZ's retail operations have grown from a small kiosk to a trio of gift shops earning millions each year.

**MIDDLE LEFT:** Since 2007, ZooLights has become a D.C. area tradition each holiday season.

**MIDDLE RIGHT:** FONZ staff celebrate the advent of the organization's 60th anniversary year.

**BOTTOM LEFT:** Clint Fields, who served as FONZ's executive director from 1989 to 2003, and board member Jeanne Beekhuis celebrate the 2002 unveiling of the lion statues—funded by an anonymous FONZ member—at the Zoo's front gates.

**BOTTOM RIGHT:** A Fujifilm representative and FONZ Executive Director Clint Fields welcome the five millionth visitor to the Zoo's giant pandas: Susan Goi from Singapore.

## Help Us Celebrate!

"It was like a gazelle walking into the middle of a pride of lions for us to start FONZ," wrote Arthur Arundel, who helped found the group and later served as president. Well, that gazelle's now turning 60!

As part of the party, we hope to raise \$60,000 to keep our multifaceted work sprinting along for another six decades. Please consider helping with a birthday gift of \$60. Thank you.

[fonz.org/fonz60](http://fonz.org/fonz60)







# fresh FACES

BY PETER WINKLER



Some hatched from eggs. Some journeyed through a mother's birth canal. Some hitched aboard trucks or planes bringing them from distant cities. One way or another, these animals joined the populations at the Smithsonian's National Zoo and Conservation Biology Institute.



**LEFT: RED SISKIN**

Among the most endangered birds on Earth, red siskins have lived at SCBI since 2015, but no chicks hatched till last year. Scientists at SCBI and partner institutions hope to create a sustainable population in human care, then reintroduce the songbirds to their habitat in South America. FONZ's Conservation Nation initiative is raising funds to help save red siskins in the wild.

**Learn more:** [fonz.org/siskin](https://fonz.org/siskin) and [conservationnation.org](https://conservationnation.org)

**FACING PAGE:  
PREHENSILE-TAILED  
PORCUPINE**

Born in October and on exhibit at the Small Mammal House, the Zoo's newest porcupette is growing into a healthy adult. In human care, prehensile-tailed porcupines can live as long as 17 years.

**Learn more:**  
[fonz.org/porcupette](https://fonz.org/porcupette)

ROSHAN PATEL/NZP

ROSHAN PATEL/NZP



## RIGHT: CHEETAHS

Donnie and Copley, a pair of two-year-old brothers, took up residence at the Cheetah Conservation Station late last year. They came to Washington from the San Diego Zoo Safari Park. Male cheetahs, usually brothers, often live in groups called coalitions.

**Learn more:** [fonz.org/newcheetahs](http://fonz.org/newcheetahs)

## BELOW: AMUR TIGER

Not since 1948 has an Amur tiger stalked into the eyes and hearts of National Zoo visitors. Pavel, a ten-year-old male, hails from Lincoln Park Zoo in Chicago. His arrival means that the Zoo now exhibits both the smallest (Sumatran) and largest (Amur) tiger subspecies.

**Learn more:** [fonz.org/pavel](http://fonz.org/pavel)

## FAR RIGHT: ANDEAN BEAR

Quito, a four-year-old Andean bear, emigrated from Germany late last year. His genes are welcome additions to the zoo population in North America. Keepers hope he and female Billie Jean will prove interested in mating.

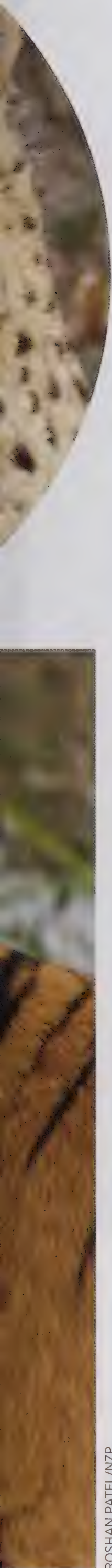
**Learn more:** [fonz.org/quito](http://fonz.org/quito)



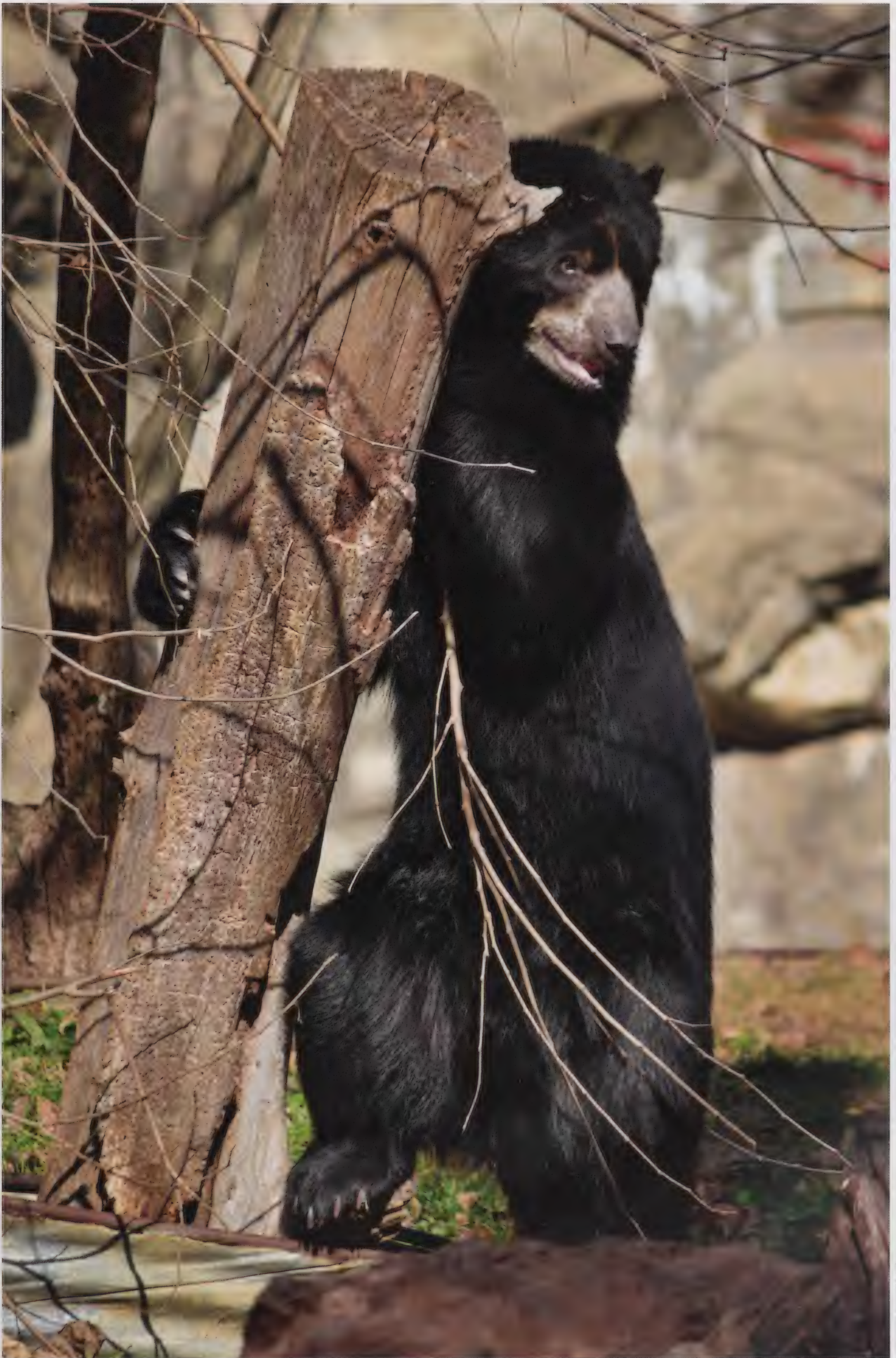
ROSHAN PATEL/NZP







ROSHAN PATEL/NZP



SARA COLANDREA/NZP



**BELOW:  
SCREAMING  
HAIRY  
ARMADILLOS**

Last summer, the Small Mammal House witnessed the first birth of screaming hairy armadillo pups in the Zoo's history. The pups, Damon and Walter, are on exhibit with their parents.

**Learn more:**  
[fonz.org/sha](http://fonz.org/sha)

ROSHAN PATEL/NZP



ROSHAN PATEL/NZP







**ABOVE: BOURRET'S BOX TURTLES**

Since 2012, keepers at the Reptile Discovery Center have tried to breed Bourret's box turtles, which are critically endangered. Each year, the female dutifully laid eggs, but none hatched till last year. The two hatchlings, the only ones in any North American zoo, are a National Zoo first.

**Learn more:** [fonz.org/bbt](https://fonz.org/bbt)





**RIGHT: OPOSSUM**  
Despite round black ears, Minnie, a new resident at the Small Mammal House, is an opossum, but we think she's at least as adorable as the screen star. Minnie came to the Zoo from North Carolina. Wild opossums eat just about anything; Minnie's diet includes greens, fruit, eggs, fish, and more.

**Learn more:**  
[fonz.org/opossum](http://fonz.org/opossum)



ROSHAN PATEL/NZP







GIL MYERS/NZP

#### LEFT: DAMA GAZELLES

Three dama gazelle calves, two males and one female, were born at the Cheetah Conservation Station last September. Each calf has a different mother but the same father. Dama gazelles are critically endangered.

**Learn more:** [fonz.org/dama-calves](http://fonz.org/dama-calves)

#### BELOW: GUAM RAILS

Extinct in their native habitat, a pair of Guam rails hatched last fall at SCBI. If all goes well, they will eventually be moved to Guam and perhaps reintroduced to the wild.

**Learn more:** [fonz.org/railchicks](http://fonz.org/railchicks)



ROSHAN PATEL/NZP



**The new “Electric Fish: Shocking Power” exhibit at Amazonia is generating lots of buzz—in every meaning of the word—and teaching Zoo visitors about these amazing and understudied animals.**

“We want to be safe,” says keeper Denny Charlton, standing before a large aquarium in the Amazonia exhibit, “so we wear these big rubber gloves as a precaution. We also wear rubber-insulated boots so it’s less likely to conduct electricity through us.” Being a keeper is hard work, requiring dedication, discipline, and a nurturing spirit. But if your beat is Amazonia—and specifically the new “Electric Fish: Shocking Power” exhibit, funded largely by donations from FONZ members—now there’s an

added challenge: avoiding electric shock.

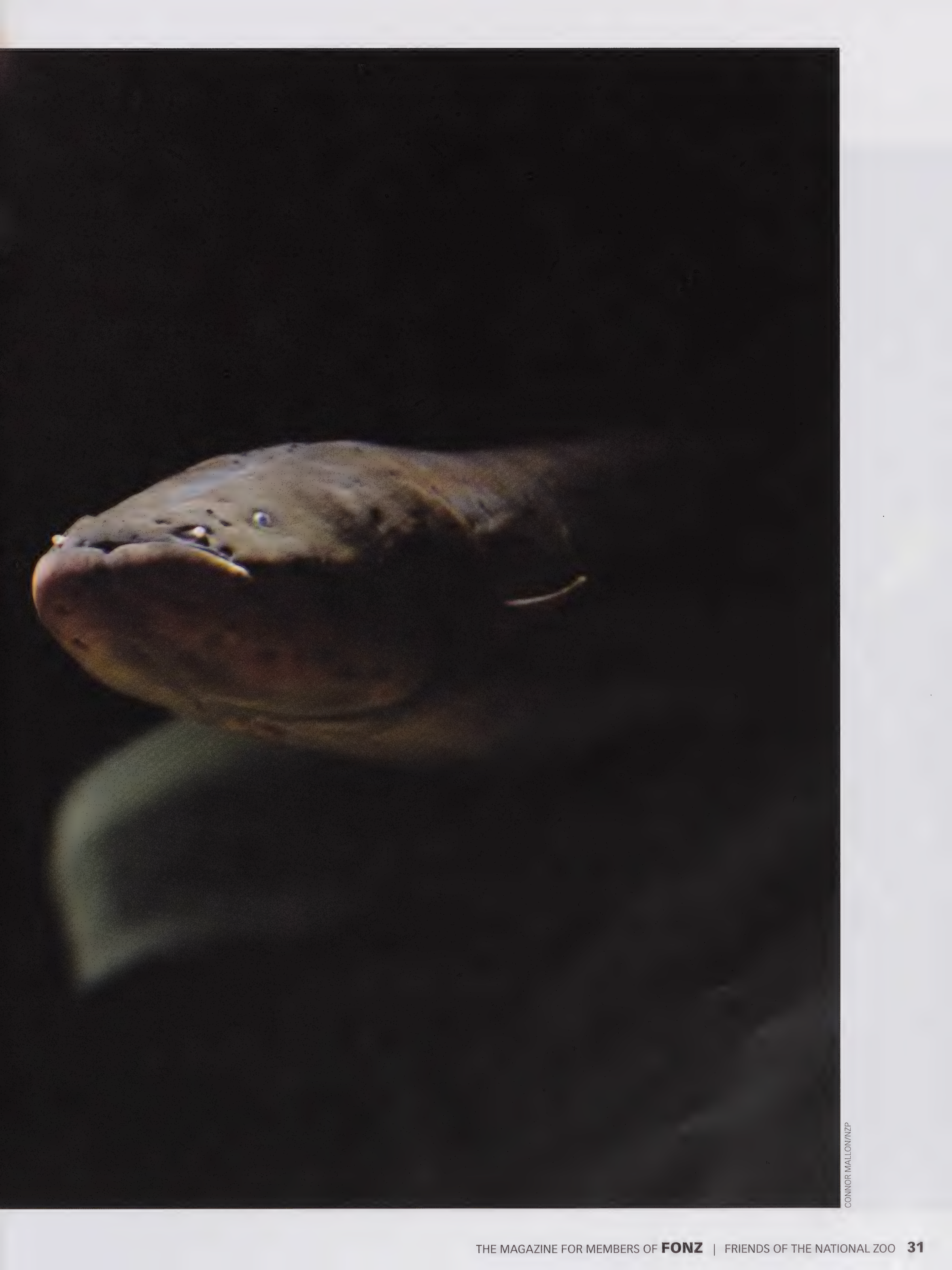
Charlton skewers a raw shrimp onto a long, floppy plastic wand, then slips his hands into rubber gloves. He dips the wand into the aquarium and lets the bait settle near the tank’s bottom.

# Shock & Awe!

BY HOWARD YOUTH

Electric eels can navigate murky rivers, hunt prey, find mates, and even jam the signals of predators—all through electrical charges.





CONNOR MALLON/NZP



## Shock & Awe!



Engineers have studied knifefish locomotion, like that of this elephant-nose species, to help design robotic submarines.

At the tank's floor, a dusky, five-foot-long creature comes to life, making wild loops and swirls in the water.

In an instant, the electric eel strikes at the wand tip and the shrimp vanishes. BVVVVVV! A loud electric zap startles us and a light flashes above the tank. The sounds subside to buzzes, then silence, and four visitors gaze up at the monitor above the tank, which measures charges sent out by one of the world's most electrifying fish. At the moment of the strike, the intensity of the fish's electric discharge spiked from almost nothing to the limits of the monitor's graph. Now, things have calmed down, and the electric eel swims to the tank top for a gulp of air before settling back to the bottom.

Despite their common name and very long bodies, electric eels are not true eels. They belong to a group known as Gymnotiformes, commonly known as knifefish. Species are found principally in South America, though some occur as far north as southern Mexico. Some other fish species can sense electrical signals—like rays and catfish—but knifefish are unique in their ability to generate signals, which they use to hunt, locate mates, navigate in dark and twisting river channels, and even jam the signals of their predators. Until recently, scientists had been left in the dark about these widespread yet mysterious species. But as Amazonia visitors learn, that's changing fast.

### Rechargeable Batteries

The electric fish exhibit opened in October 2017, following a seven-year process involving curators, scientists, keepers, educators, exhibit designers, and electronics experts. It's designed to highlight all the amazing features of these fish. The anatomy of an electric eel is built to charge and re-charge, almost like a battery. (In fact, famed scientist Alessandro Volta developed the electric battery based on his work with electric eels.) The eel's head has a positive charge, while its tail runs negative. At the National Zoo exhibit, a bronze model illustrates this fact. When you touch both ends, you complete the circuit, causing the model to vibrate and

COURTNEY SMITH/FONZ



a video to start up on a nearby screen. The video compares the electric eel's elongated anatomy with that of a more "standard" catfish.

In the eel, the vital organs are packed up front, while the back four-fifths—the long tail—produces electric signals. That process happens through three organs, which generate low-voltage pulses for communication and navigation and high-voltage zaps for self-defense and hunting prey.

All three organs contain thousands of electrocytes, or disc-shaped cells. Under normal conditions, each electrocyte carries a tiny negative charge on the outside and a positive charge on the inside. When the eel senses something, its motor neurons fire, releasing a neurotransmitter that links the inner and outer part of one side of the cell. Each cell thus acts like a tiny battery, with a negative charge on one side and a positive charge on the other. When thousands of cells fire within milliseconds—zap.

Knifefish, including electric eels, are also unusual in how they get around. Unlike most of the world's 32,000-plus species of fish, knifefish lack pelvic and dorsal fins, and they only have small, vestigial tail fins. However, they have an anal fin that runs the length along the underside, moving like a long, rippling ribbon. This feature gives knifefish precise mobility, allowing them to swim backwards and even hover. (Most fish can only swim forward.) Engineers have studied knifefish locomotion, attempting to mimic the fluidity and precision for robotic submarines and other applications.

In fact, engineers have long admired the design of these fish. The world's first all-electric submarine, launched in France in 1888, was called the Gymnote. Its name referenced the scientific order of knifefish: Gymnotiformes. In Greek, "gymnot-i" means "naked backed," in reference to their lack of dorsal fins.

In their backwater habitats of the Amazon basin, knifefish inhabit waters low in oxygen. Although they do have gills that can process oxygen from water,

about 80 percent of their oxygen intake comes from air that they gulp through their mouths and then process through highly vascularized tissues in their backs.

### Shocking Discoveries

In the Amazon region, people fish and bathe with caution for fear of startling electric eels. If you study fish in that part of the world, you also need to watch where you step or dip your hands. Just ask National Museum of Natural History biologist David de Santana. Much of the science in the new Zoo exhibit relates to de Santana's field work in South America. During his career, de Santana has traveled throughout the Amazon region. He and his colleagues first described 79 of the more than 230 knifefish species found there. And, yes, he's been shocked while working in the field.

"Some fishermen and I were collecting black ghost and glass knifefish with a seine net in a small, murky river in Brazil," he explains. "Back then, in 2000, we weren't using fish detectors that can easily detect the presence of an electric eel, and together with the knifefish we unexpectedly caught a five-foot-long electric eel that shocked me in the legs. I fell into the water and, as a result, lost several knifefish I had in my tray." Although electric eels' shocks are highly painful and could potentially incapacitate someone in water, presenting a drowning threat, electric eels do not intentionally attack nor kill people.

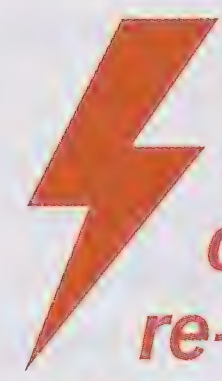
Thanks to recent research by de Santana and his colleagues, we know that there is not just one species of electric eel, but at least eight, one of

## "Current" Affairs

The Zoo's five-foot-long electric eel arrived in 2015 from the Houston Zoo and is about ten years old. You can see a demonstration and keeper talk at the exhibit each day at 1:30 p.m. The electric eel is fed four days a week, usually on Tuesdays, Thursdays, and weekend days. In addition to the electric eel, you can see black ghost, elephant-nose, and bluntnose knifefish, along with rare underwater footage of wild electric eels taken in the field by de Santana and Douglas Bastos (a Ph.D. student at a university in Brazil). Keep checking back—de Santana hopes to update the exhibit from time to time with new information from his studies.



## Shock & Awe!

 **The electric eel is built to charge and re-charge, almost like a battery.**



COURTNEY SMITH/FONZ



COURTNEY SMITH/FONZ

The new exhibit, largely funded by FONZ members, includes interactive features that show how the anatomy of electric fish generates a charge.

which can deliver a charge of up to 850 volts—about seven times the voltage of a typical household appliance.

### An Electrifying Start

Amazonia Senior Curator Ed Bronikowski was key in proposing and developing the exhibit (along with Amazonia Assistant Curator Ed Smith). But for Bronikowski, the initial spark came decades ago. When he was just seven years old, Bronikowski visited a similar electric eel exhibit at the Greater Cleveland Aquarium. “It was a real ‘shocker,’ pun intended,” he says. As an adult, Bronikowski’s passion for fish perhaps could be measured in aquaria. He had 33 at home, housing a wide variety of fish, including electric catfish from Africa. At age 20, he returned to the

aquarium to discuss a plan he had drawn up to rig the aquarium that housed his pet African electric catfish so that audio and a strobe light would trigger when the fish discharged electricity.

“Director Dan Moreno graciously looked at my electronics schematic and showed me where I had the wiring wrong on the amplifier. I thanked him and left his office,” says Bronikowski. But before Bronikowski left the aquarium, he felt a tap on his shoulder. “The director asked, ‘Are you looking for a job?’ That’s how I entered the zoo/aquarium industry, as an entry-level, algae-scraping aquarist,” says Bronikowski.

De Santana also got his start raising fish at home. As a teen in Brazil, he had ten aquaria, plus an outside pond. While visiting his grandparents’ farm in Amazonia, he would comb the streams and lakes for fish to add to his collection. “My interest in fish started in my childhood and became more serious during adulthood,” he says, adding that his quest to learn more led him to a master’s then a doctorate degree in zoology. “I saw a gap in studies of diversity and evolution in this group of fish, so I built my professional career filling those gaps in the knowledge of the Gymnotiformes,” he says.

There seems to be more than a lifetime of work left to answer many puzzles about these fish. Although many knifefish species are common—in Amazon and Orinoco river channels between two and 30 meters deep, these fish constitute between a quarter and 85 percent of the biomass—very little is known about them. “I’m now





The electricity-generating organs make up four-fifths of an eel's body and can fire in milliseconds.

leading a five-year project between the National Museum of Natural History and the Museum of Zoology at the University of São Paulo that aims to discover new species of Gymnotiformes and place them in the tree of life,” de Santana says.

Discovering new species is important not only for biodiversity but also because they can reveal a variety of hidden substances and functions, some of which could have modern applications. The recharging capabilities of some knifefish, for example, have been studied for possible ways to develop recharging pacemakers.

The interactive exhibit is linked with ground-breaking research done by Smithsonian Institution scientists. De Santana hopes to regularly update the exhibit with new findings from the

ongoing field and lab work he and his colleagues conduct as they paint a clearer picture of the diversity and evolution of South America's knifefish.

Like a reluctant movie hero cloaking superpowers, these under-studied, understated fish are now getting the attention they deserve. As with so many Smithsonian exhibits, visitors may be left inspired and curious to learn more about electric fish and their habitats, just like the amateur hobbyists who grew up to become a curator and a biologist, given the rare opportunity to pursue what they love and share it with so many others. **SZ**

—HOWARD YOUTH, *formerly an editor for this magazine, writes on natural history and wildlife conservation issues.*





Good day.

Great day.



## Go Wild!

Think you know the Zoo and its animals? Then let's see how you do with these beastly bafflers. You'll need a nose for names, an eagle eye to spot words, and a mind for measurements.

### ZANY NAMES

Animal names can be tricky.  
Can you guess whether these names accurately describe the animal?  
Find answers on page 39!



### true OR false?

Meerkats are cats.

(T) (F)

Naked mole-rats are naked.

(T) (F)

Poison dart frogs are poisonous.

(T) (F)

Norway rats are from Norway.

(T) (F)

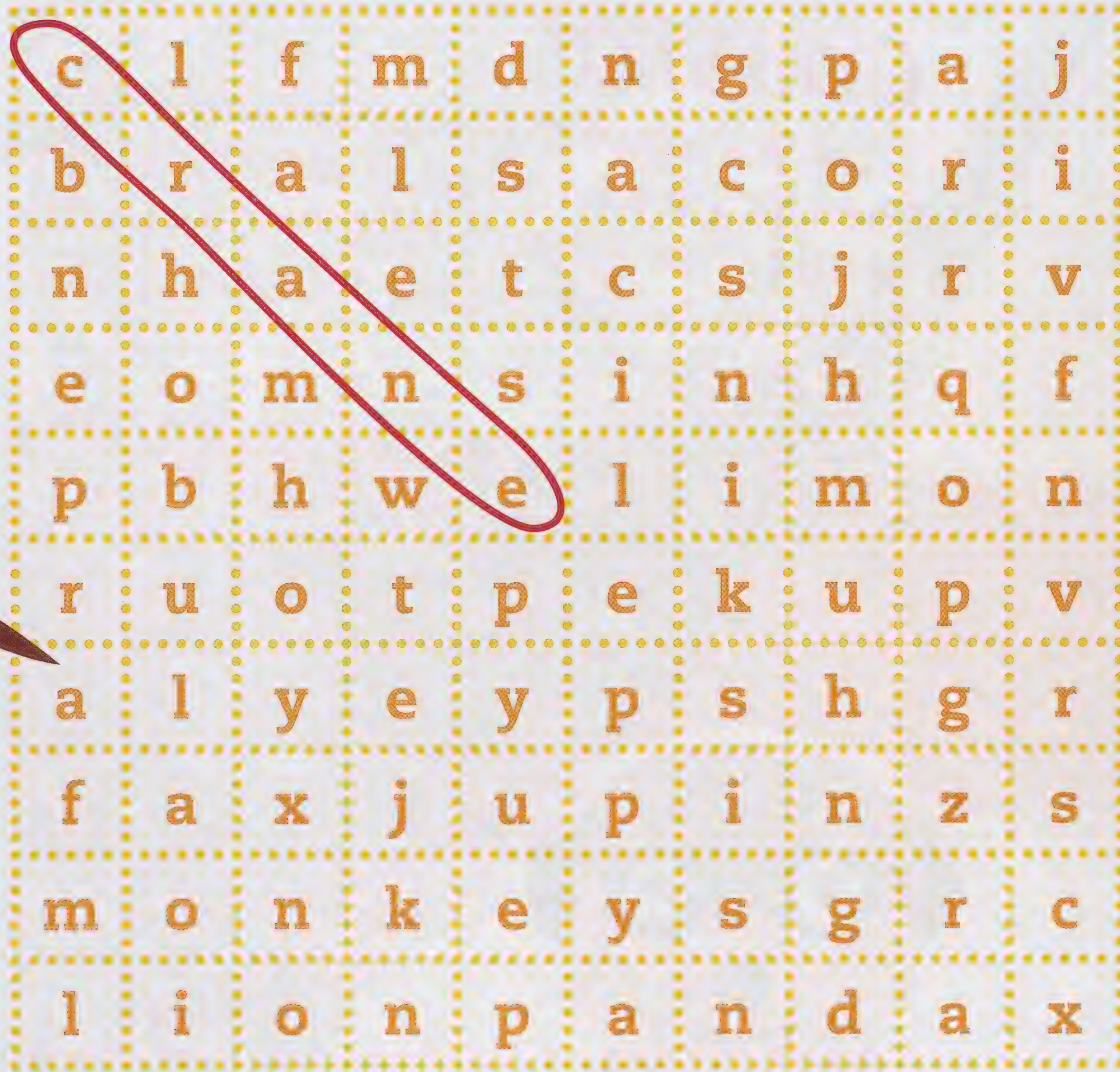
Bald eagles are bald.

(T) (F)



Find and circle the  
10 animal words  
listed below.

crane  
frog  
lion  
monkey  
panda  
pelican  
python  
seal  
siskin  
wolf



WARNING —  
spelling back-  
ward is part of  
the game!





# BIG GUYS

Giants come in assorted sizes.  
Here are three you can find at the Zoo.  
Can you guess the measurements  
of this terrific trio?

## 1: Giant leaf-tailed gecko

- a. 5 to 7 inches
- b. 10 to 12 inches
- c. 18 to 24 inches

## 2: Japanese giant salamander

- a. up to five feet long
- b. up to seven feet long
- c. up to nine feet long

## 3: Giant panda

- a. up to 350 pounds
- b. up to 250 pounds
- c. up to 150 pounds



answers: 1 - b, 2 - a, 3 - b

**BIG GUYS**

## Zany Names True or False Answers

- **Bald eagles are bald.** FALSE: Stark white feathers on the birds' heads make them look bald, but they aren't. They're also known as American eagles and serve as a national symbol.
- **Norway rats are from Norway.** FALSE: These supersmart rodents, also known as brown rats, are originally from northern China, but they spread throughout the world on ships. They now live on every continent but Antarctica.
- **Poison dart frogs are poisonous.** TRUE: Poison oozes from the frogs' skin, making them a bad menu choice for predators. The frogs get the poison from animals they eat. It doesn't harm the frogs themselves.
- **Naked mole-rats are naked.** TRUE: These underground dwellers have pretty much no hair on their bodies. Oddly, they do have some hair in their mouths! It helps them avoid swallowing dirt while digging tunnels with their teeth.
- **Meerkats are cats.** FALSE: They're members of the mongoose family. It gets weirder. A mongoose is not really a goose. It's a small, pointy-nosed carnivore.



# FONZ

## 2018 SUMMER CAMPS

### FONZ RESOURCES

[fonz.org](http://fonz.org)

Member/Donor  
Information  
202.633.2922

Special Events  
202.633.4470

Corporate Events  
202.633.3045

Camps and Classes  
202.633.3024

Public Programs and  
Volunteer Services  
202.633.3025

Sponsorships/  
Partnerships  
202.633.3046

Comments? Questions?

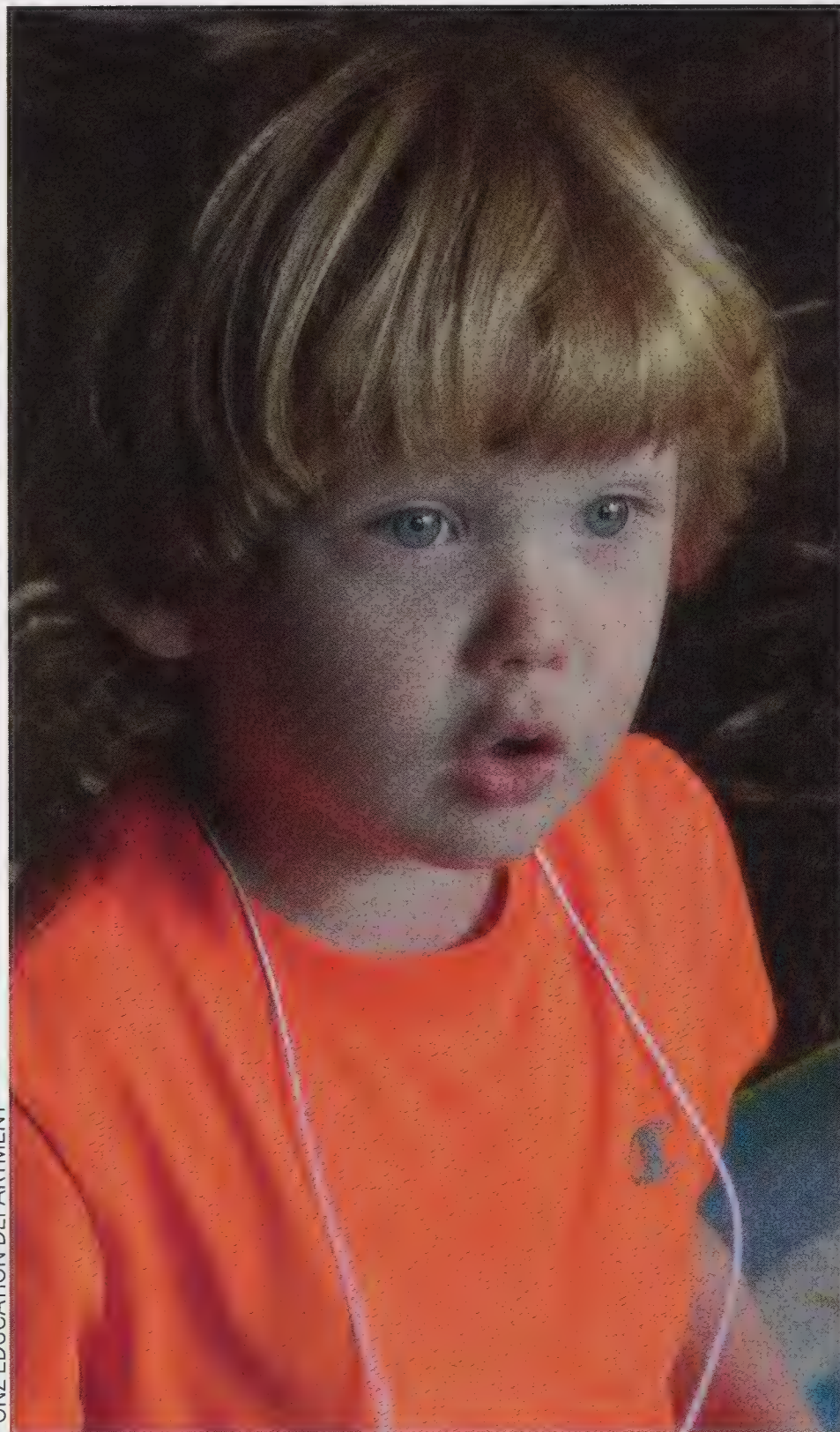
Please email us at  
[fonzmember@si.edu](mailto:fonzmember@si.edu)

Ready to renew your  
FONZ membership?

Call 202.633.2922

or go to

[fonz.org/join](http://fonz.org/join)



FONZ EDUCATION DEPARTMENT



FONZ EDUCATION DEPARTMENT

### Summer Safari Day Camp: A Wild Nature Exploration For Children In Grades K-7

Summer Safari Day Camps explore the lives, habitats and conservation of animals around the world. Week-long sessions include exciting hands-on activities, lessons, craft projects, science experiments, and walks through the Zoo (but no direct contact with animals).

Eight one-week sessions from June 25 to August 17  
[fonz.org/safari2018](http://fonz.org/safari2018)

#### FEES

Camp fee includes a Safari Day Camp baseball cap, water bottle, daily snack, and a ride on the Speedwell Foundation Conservation Carousel.

*FONZ Members:* \$400

*Non-Members:* \$500

*Before-Camp Care:* Available from 8 to 8:45 a.m. Cost is \$100 per session.

*After-Camp Care:* Available from 3 to 6 p.m. Cost is \$175 per session.

#### REGISTRATION

With our registration system, all participants must have an online account. You will need your FONZ member ID number to login and receive the member rate. This system enables you to register multiple children at once, view your account online, and make payments.



Spaces are filling  
quickly for Summer  
Safari Day Camp!  
Register today!

Summer Safari Day Camp is  
accredited by the American  
Camp Association.



It's the most exciting conservation  
camp on the East Coast,  
*and your child is invited.*



**This is no ordinary camping trip!**

**SNORE & ROARS ARE NOT JUST FOR KIDS!**

Adult-only programs include a keeper-led tour of an exhibit area, wine and cheese, activities, a guided tour of the Zoo, and a breakfast snack.

Find a schedule and register for an adult-only Snore & Roar online:

**fonz.org/  
SnoreandRoarAdults**

## Snore & Roar Overnights

**REGISTRATION** Priority registration for Premier Plus and higher-level FONZ members starts on March 27 at 10 a.m. Registration for all FONZ members begins on April 3 at 10 a.m. Public registration opens on April 10 at 10 a.m.

Snore & Roars are a rain-or-shine event.

**FAMILIES:**

\$100-\$140 per person for FONZ members  
\$120-\$168 per person for non-members

**ADULTS:**

\$150/person for FONZ members  
\$180/person for non-members

**AGES** All children must be at least 6 years old by the date of the program. No refunds will be granted for registrations involving children under 6 years of age.

**Tour Choices** Enjoy an exclusive keeper-led tour of Zoo exhibits, including American Trail, Asia Trail, Elephant Community Center, Great Cats, Reptile Discovery Center, or the Small Mammal House. Find a full list and register online at **fonz.org/snoreandroar**.



## Scout Snooze Overnights

**Bring your troop for a wild night they won't soon forget!**

Your Scout Snooze will include all components of a Snore & Roar, with crafts and activities specifically geared towards scouts. Your group will sleep in four- or six-person tents. Scout leaders are responsible for tent assignments.

**Scout Snooze sleepovers are available to FONZ members only!**

To register, at least one adult per scout group must have a FONZ membership. Find a schedule and register online:

**fonz.org/scoutsnooze**

**REGISTRATION** Priority registration for Premier Plus and above level FONZ members starts on March 27 at 10 a.m. Registration for all FONZ members begins on April 3 at 10 a.m. Scout Snooze is a rain-or-shine event.

**FEES** \$900 for up to 10 people. \$90 for each individual after that. Maximum of 20 participants total (adults included).

**AGES** All children must be at least 6 years old by the date of the program. No refunds will be granted for registrations involving children under 6 years of age.

A paying adult must accompany all participants under 18, and one adult chaperone is required for every three children.

**Tour Choices** Enjoy an exclusive keeper-led tour of Zoo exhibits, including Amazonia, the Reptile Discovery Center or the Small Mammal House. Find a full list and register online at **fonz.org/scoutsnooze**.

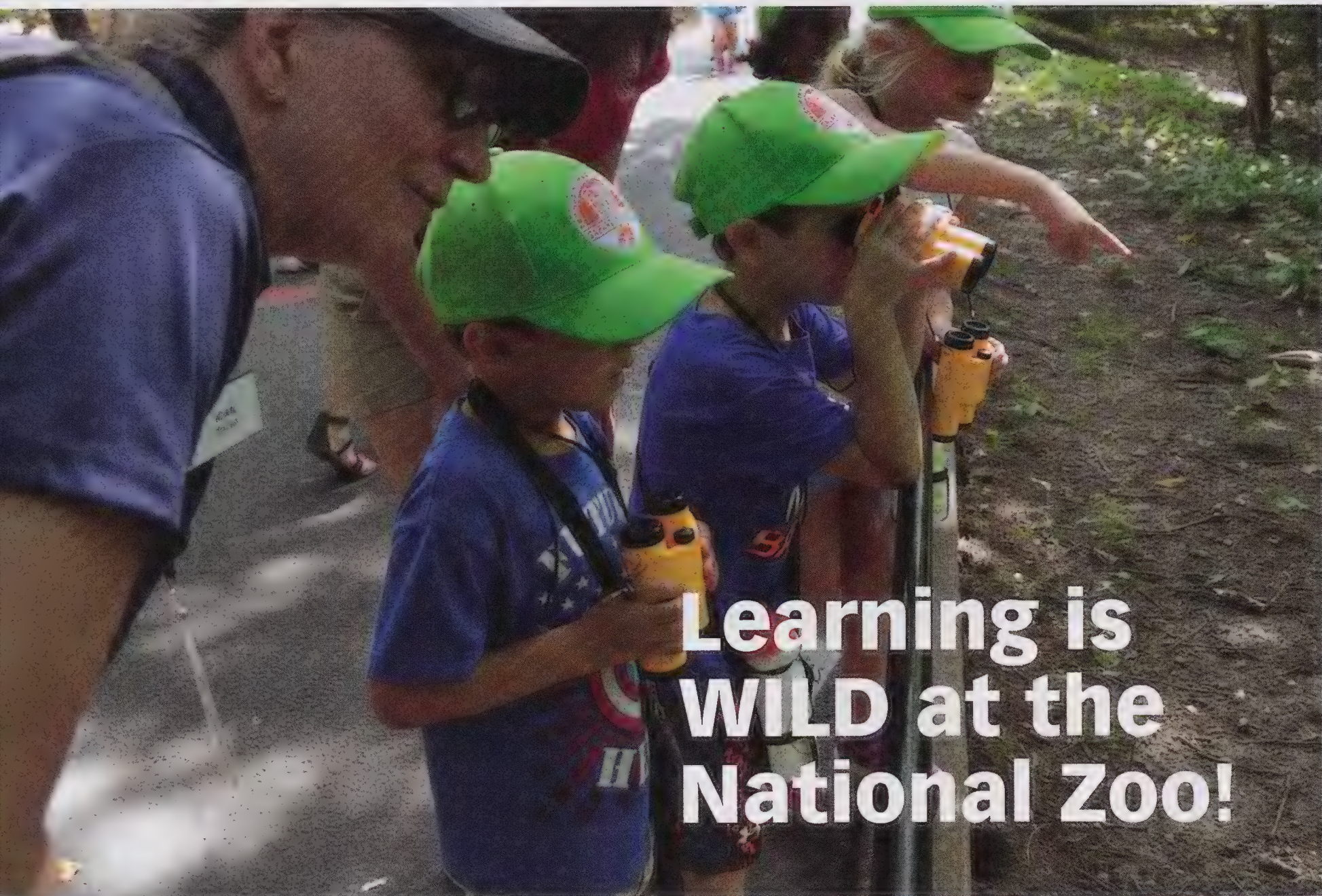


**New for 2018! Bye-bye promo codes, hello new registration system! To receive your member discount, simply login using your member account information.**



# FONZ

## CHILDREN'S CLASSES



PHOTOS BY FONZ EDUCATION DEPARTMENT



**FONZ classes use hands-on activities, nature-based play, and the Zoo’s animal collection to help your child learn about science and environmental conservation. Whether you prefer a regular, weekly experience with your child or a one-time program about her favorite Zoo animal, you’re sure to find a class to suit the needs of your young animal lover. Classes for ages 0-14 are now available.**

Classes do not include behind-the-scenes visits or direct contact with the animals, but do use pelts, bones, feathers, and other touchable artifacts. For everyone’s safety, unregistered children may not attend.

See detailed descriptions and register at [fonz.org/classes](http://fonz.org/classes).

Five-class series	Six-class series	Weekend Classes
\$150 (FONZ members)	\$180 (FONZ members)	\$28 (FONZ members)
\$188 (non-members)	\$225 (non-members)	\$35 (non-members)

### NATURE CUBS CLASS SERIES

Nature Cubs classes meet once a week for five weeks and use interactive learning stations, hands-on activities and crafts, nature-based play, and exciting Zoo walks to engage your child’s sense of wonder and curiosity about wildlife and the natural world. *Saturday morning session now available!*

#### AGES 0-2 (with adult)

##### NEW! ZooTunes for Tots!

Wiggle, giggle, move, and groove: it’s a brand new music and movement program for our littlest Zoogoers and their caregivers! Specially designed for tots under 2, ZooTunes will have you tapping your toes, twitching your tail, and roaring with the animals!

April 5-27  
Thursday and Friday sessions, 10-10:45 a.m.  
\$14/session for FONZ members  
\$18/session for non-members  
See [fonz.org/classes](http://fonz.org/classes) for weekly themes

#### AGES 2-3 (with adult)

##### Animal Alphabet

Z is for Zoo! Each week, a different letter will guide our explorations of a Zoo animal and the adaptations that help it survive.

April 9-May 19  
Sessions available Monday through Friday, 10-11:30 a.m.  
Saturdays, 9-10:30 a.m.

##### Shapes with the Apes

Join us on a shape safari at the National Zoo! A different animal each week will help us practice shape recognition and categorization!

June 6-28  
Sessions available Wednesday or Thursday, 10-11:30 a.m.

#### AGES 3-5 (with adult)

##### Zooper Heroes

From super strength and speed to (nearly) X-ray vision, there’s no end to the incredible abilities of the National Zoo’s superman-imals! Learn about these zoo-perheroes and make your own zoo-perhero cape to take home!

April 9-May 19  
Sessions available Monday or Tuesday, 10-11:30 a.m.  
Saturdays, 9-10:30 a.m.

##### Shapes with the Apes

Join us on a shape safari at the National Zoo! A different animal each week will help us explore the shapes we see and how they relate to animal adaptations!

June 5-26  
Sessions available Tuesday, 10-11:30 a.m.





**WEEKEND CHILDREN'S CLASSES (AGES 2-3 OR 3-5)**

Single-session classes for children and adults to enjoy together! Interactive stations and a hands-on discussion get you ready to visit the animal of the day!

**See [fonz.org/classes](https://fonz.org/classes) for specific information about ages and dates.**

**Monkey See, Monkey Do**

Jump, swing, groom, and climb: learn what it's like to be a curious monkey! Ages 2-3  
March 4, 10-11:30 a.m.

**Fantastic Frogs**

Spring forward with the hoppiest creatures at the Zoo: our fantastic frogs! Ages 2-3  
March 11, 10-11:30 a.m.

**Who's in the Egg**

It's a surprise! Many animals hatch from eggs. Which animals will be in yours? Ages 3-5  
March 18, 10-11:30 a.m.

**Curious George Goes to the Zoo**

Put on your yellow hat! We're learning about some of our favorite curious little monkeys at the Zoo! Ages: 2-3  
April 7 and 8, 9-10:30 a.m.

**Old MacDonald Had a Zoo!**

E-I-E-I-O! Sing along as we learn about your favorite Kid's Farm animals: cows, goats, pigs, and more! Ages: 2-3  
April 15, 9-10:30 a.m.

**Splish Splash Sea Lions**

Enter the Splash Zone! We're learning about the Zoo's playful pinnipeds! Ages 2-3 and 3-5  
April 22 and 29, 9-10:30 a.m.

**Meerkat Mania**

Dig into learning with the Zoo's friskiest family: our mob of meerkats! Ages 2-3  
May 6, 9-10:30 a.m.

**Littlest Critters**

Celebrate Mother's Day with some of the Zoo's favorite mothers and babies! Ages 2-3  
May 13, 9-10:30 a.m.

**Breakfast with the Bears**

Learn about the favorite foods of the National Zoo's bears and then enjoy a real teddy bear picnic for snacktime! Ages 2-3 and 3-5  
May 20, 9-10:30 a.m.

**NEW!**  
**ZOO 101:**  
**HOMESCHOOL CLASS**  
**SERIES FOR**  
**11-14-YEAR-OLDS**

Zoo 101 is a project-based class that explores major topics in the inner workings of a zoo. Zoo 101 will explore a different core topic in zoo management each session and is appropriate for students ages 11 to 14, or those students who have completed three full years of FONZ homeschool programs.

**Research and Field Work**

The conservation work of the National Zoo extends far beyond Connecticut Avenue. Using the work of the Smithsonian Migratory Bird Center as our starting point, we will explore some of the ways that zoos use field work and research to care for the animals in their collection as well as their wild counterparts.  
April 12-May 24  
Thursdays 1:00-3:00 p.m.

***Zoo programs  
turn the entire  
park into a  
classroom!***





RHONDA GREGORIO/NZP

## MAY IS MEMBER MONTH!

Each May we celebrate our amazing, dedicated members—namely you! To show our appreciation, we invite you to join us at the Zoo for special members-only happenings:

- exclusive access to an animal exhibit
- special discounts and giveaways
- and much more!

Get the event schedule and details at:

**fonz.org/membermonth**

**Renew in May and get two months FREE!**

**That's 14 months of great benefits. Offer valid for online and in-person sales.**

together we make magic



**Thank you to our corporate sponsors!** With your continued support we are able to raise essential funding towards the Zoo's mission to save species. Not a Friends of the National Zoo corporate sponsor yet? It is a great way to connect with local, national, and international guests through multi-channel sponsorship opportunities and associate your brand with award-winning science and conservation projects. Call Kerry Schneider at 202/633-3046 to find out more today. Partnership with Friends of the National Zoo—**see what the BUZZ is about!**





**A gift for you.** Sure, getting a present feels good—but saving an animal feels way better. Your birthday, graduation, or wedding is the perfect chance to create a fundraising page and ask friends and family to contribute to the species-saving work of our National Zoo and SCBI scientists. Every dollar helps save the endangered species that call this planet home. With Conservation Nation, you've got celebrations wrapped up!

**CONSERVATION NATION** 

START A FUNDRAISER ■ **CONSERVATIONNATION.ORG** ■ FIGHT EXTINCTION





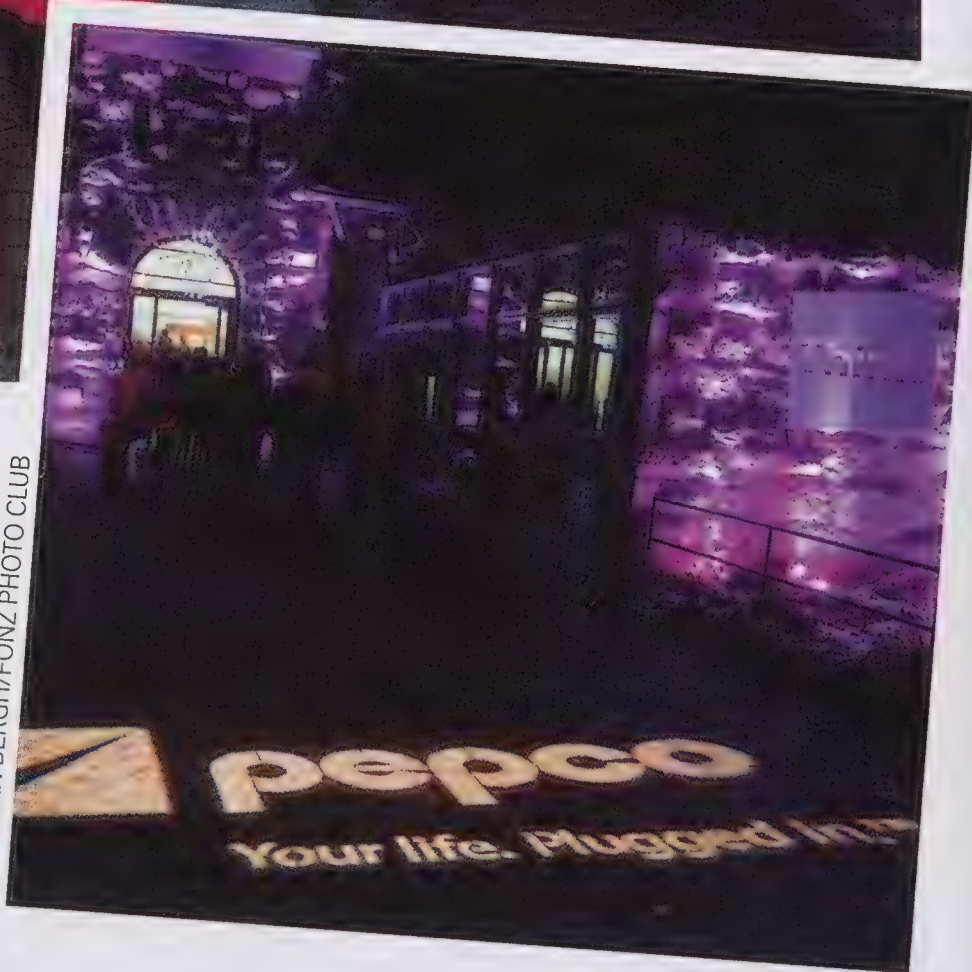
MARK VAN BERGH/FONZ PHOTO CLUB

**Statement of Ownership—**  
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**Friends of the National Zoo**  
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Paid in-county subscriptions	0	0
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Other classes of USPS mail	47	49
Paid electronic distribution	662	662
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Free distribution by mail	0	0
Free distribution outside mail	2,900	2,700
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Percent paid/requested circulation	92%	84%

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MARK VAN BERGH/FONZ PHOTO CLUB

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**make a donation of \$60 or more today,** so we can do even more to help the Zoo save species.

**Fonz.org/FONZ60 ● We couldn't do it without you.**







CLYDE NISHIMURA/NZP

## Ready for His Close-Up

**Long-time FONZ volunteer Clyde Nishimura is a regular at the Small Mammal House,** so he knows the building—and the animals that live in it—inside and out. (He routinely photographs those animals for Zoo staff.) For this image of Coronado, a red-ruffed lemur, Nishimura worked in the afternoon on a day where there were plenty of other attractions elsewhere in the Zoo, so the building was less crowded.

The light inside the Small Mammal House is dim, but you can't fire a flash directly at the animals you want to photograph. (It will simply bounce off the glass fronts of the exhibits.) Instead, Nishimura aimed the flash at the ceiling and back a bit, so the reflected light came in softer. "It accentuates the animals' features better," he says. A curious Coronado—coming close to the glass—helped too. (Nishimura never does anything to attract the animals' attention; in fact, as a volunteer, he tells people not to do things like that.) It all came together in a stunning photo.

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### Technical Notes

**CAMERA:** NIKON D7100; **ISO:** 1000; **EXPOSURE:** 1/100 SEC AT F/8

### Share Your Photos!

Smithsonian Zoogoer welcomes FONZ members' submissions of photos taken at the Zoo. Please send photos to [Zoogoer@si.edu](mailto:Zoogoer@si.edu) or post to [@FONZNationalZoo](https://twitter.com/FONZNationalZoo) on Twitter, Instagram, or Facebook. Use the hashtag **#WeAreFONZ**. Your photo may be featured on the Zoo View page.

**Join the Club!** Membership in the FONZ Photo Club is open to photographers of all skill levels. The group meets monthly to hear guest speakers and to share and discuss members' work. Learn more at [fonz.org/photoclub](http://fonz.org/photoclub).



# TIDY UP BY LICKING YOURSELF CLEAN

— — — — —  
DINING ETIQUETTE TIP #8  
Komodo Dragon  
— — — — —



## ZOOFARI

DINE FOR WILDLIFE sponsored by GEICO®

May 17, 2018 • 6:30-9:30 • Smithsonian's National Zoo


It's feeding time! Satisfy your appetite with the gourmet fare that has made ZooFari a local tradition for 34 years. Sample tastings from nearly 100 of Washington's finest restaurants and savor wines from around the world. This is DC's longest running gourmet food tasting event and with a silent auction and live entertainment, tickets sell fast! FONZ members enjoy special pricing and early ticket sales beginning April 5. [fonz.org/zoofari](http://fonz.org/zoofari)

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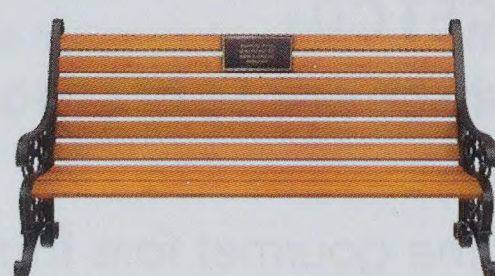
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# Help save species.

(and tired legs)



Zoo benches are a great way to celebrate people who like animals. And sitting.  
Order a commemorative bench today at [FONZ.ORG/BENCHES](http://FONZ.ORG/BENCHES)